

FM 100-10

DEPARTMENT OF THE ARMY FIELD MANUAL

FIELD SERVICE REGULATIONS ADMINISTRATION



DEPARTMENT OF THE ARMY • OCTOBER 1954

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FIELD SERVICE REGULATIONS— ADMINISTRATION

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*This manual supersedes FM 100-10, 12 September 1949, including C 1, 28 May 1952.

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CHAPTER 1

ADMINISTRATION, GENERAL AND TERRITORIAL

Section I. GENERAL

1. Purpose, Scope, and Organization

a. Purpose. This field manual prescribes principles of Army administration as applied in theaters of operations.

b. General. All military activity is divided into two interlocking fields: strategy and tactics (or combat operations) and administration (or service operations). These fields are separated in field service regulations only for convenience of discussion. Field service regulations are field manuals which give the basic principles and regulations governing the operations of large units, territorial commands, and combined branches and services.

c. Scope. This manual contains fundamentals of Army administration for division, corps, army, and the communications zone, and provides general reference to administration at higher levels of theaters of operations. It reflects current policy on factors influencing administrative decisions.

d. Organization

- (1) Chapters 1 through 4 outline the normal Army territorial, command, staff, and service organization upon which the dis-

cussion of administrative operations contained in the remaining chapters is based. In any theater, departures from this organization may be authorized when required by the situation. Such departures may require corresponding changes in the procedures set forth in chapters 5 through 14.

- (2) Chapters 5 through 14 deal with basic Army administrative operations and discuss the governing principles under the headings of personnel, intelligence, operations, and training, civil affairs/military government and logistics.

e. Changes. The information contained in this manual reflects current policies *at the time of publication*. These policies are under study continuously and modifications will be reflected in future changes to, or revisions of, the manual. Users of this manual are invited to submit recommended changes to the Commandant, Command and General Staff College, Fort Leavenworth, Kansas, for consideration and inclusion in future changes to, or revisions of, this manual. (See SR 310-10-3 for desired format of recommendations for corrections and changes.)

2. Administrative Planning

The commander must insure that all administrative operations follow a single coordinated administrative plan which supports the tactical operation. Tentative strategic and tactical plans are tested for administrative feasibility before detailed planning is begun, and such revisions made as to permit administrative support in cases found infeasible. A com-

prehensive and timely administrative plan to support the adopted strategic or tactical plan is then developed, frequently concurrently with the detailed operational planning. Actions to provide administrative support may frequently be required before the strategic or tactical operation is formally announced to the command. They will require forceful execution and constant supervision. Alternative plans are prepared to support alternative operational plans. Administrative operations are planned and executed in a manner which will allow maximum flexibility to cope with unforeseen changes, to adopt new strategic and tactical plans, and to support future operations.

Section II. TERRITORIAL

3. Theater (Area) of War

(fig. 1)

The theater of war is that area of land, sea, and air which is, or may become involved directly in the operations of war. It is subdivided in accordance with the nature of the air, ground, and naval operations planned. Major territorial subdivisions are the zone of interior, theaters of operations, and area commands. Air subdivisions conform, in general, to territorial subdivisions, but may differ according to the nature of aerial warfare.

4. Zone of Interior

The zone of interior ordinarily comprises all national territory exclusive of theaters of operations, but may, under certain circumstances, include foreign territory, either allied or neutral.

5. Theater (Area) of Operations

A theater of operations comprises that portion of a theater of war necessary for military operations pursuant to an assigned mission, and for administration incident thereto. Theater limits are designated to provide room for maneuver, for security, and for the operation of lines of communications.

a. Organization. A theater of operations is organized administratively to meet the needs of the forces assigned to the theater. Initially, the organization may be prescribed in general plans for the theater. Subsequent development of the administrative organization is a responsibility of the theater commander and is based on theater experience. Figures 2 through 6 show schematically some, but not necessarily all, of the variations in territorial organization to be found in various types of theaters of operations. A schematic representation of a theater of operations on a large land mass is shown in figure 2. The purpose of this diagram is to show the general territorial relationships, from front to rear, of the combat zone and the communications zone, and their territorial divisions, when used. The intermediate section of the communications zone is established when the territorial and logistical tasks become so great that they can no longer be efficiently performed by base section(s) and an advance section. The number of base and advance sections established will depend upon the volume of support operations and the territorial extent of the communications zone.

b. Decentralization. A theater of operations normally is divided geographically into a combat zone containing those land and sea areas and air masses required for ground combat operations and the imme-

diate administration of the forces operating therein, and a communications zone containing those land and sea areas, and air masses required for administration in the theater as a whole. Limits of the respective zones should conform with the established political boundaries when permitted by operating missions. When a theater of operations contains only limited, and possibly discontinuous, land areas, as in an ocean area or an isolated continental area, such territorial subdivision may not be feasible. Initially a theater of operations may include only a combat zone, while installations and facilities of the zone of interior are being used for the direct support of the theater forces.

c. Ocean Area. The type of warfare resulting from the geographical conditions found in an ocean area may not permit a complete segregation of combat and administrative operations into entirely separate and mutually exclusive areas, as in a continental theater of operations. The theater commander must organize his forces and the territory they occupy to permit the unity of command necessary for both combat and administrative operations. The administrative establishments serving the ocean area may be dispersed throughout the theater (fig. 1).

6. Area Command

(fig. 1)

An area command is composed of those organized elements of one or more of the armed services, designated to operate in a specific geographical area, and which are placed under a single commander. Specific missions and limits of authority of area commanders are defined in terms of the territory assigned to them.

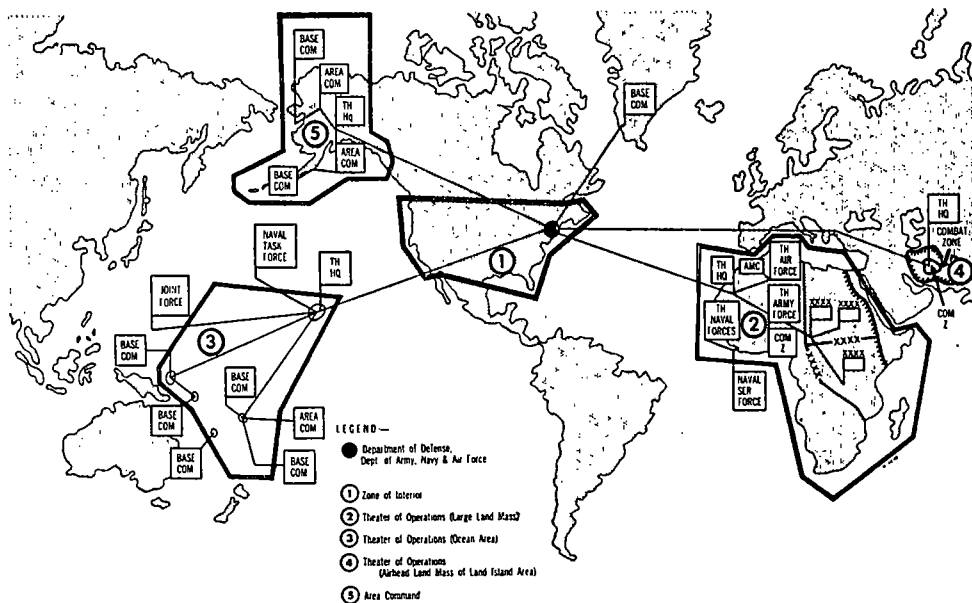


Figure 1. Theater of war.

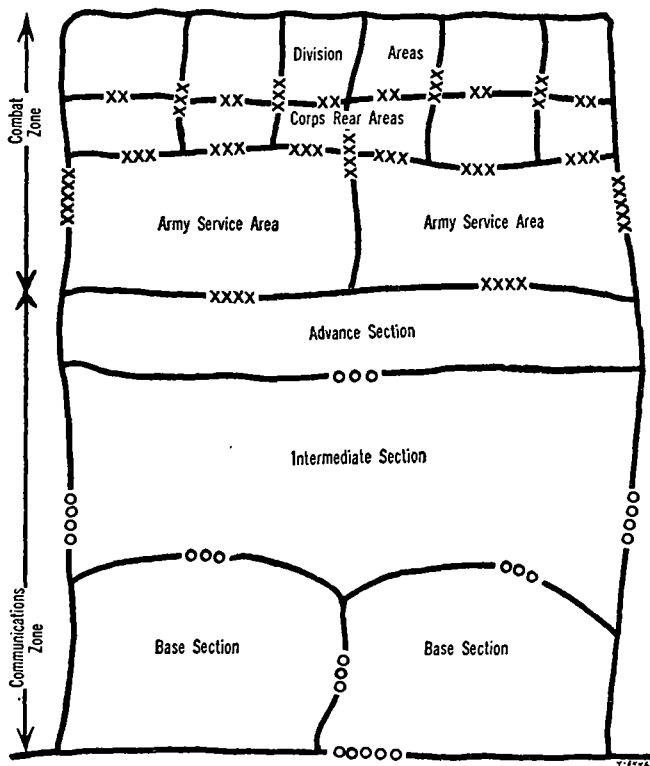


Figure 2. United States portion of a theater of operations (schematic) on a large land mass with a divided communications zone.

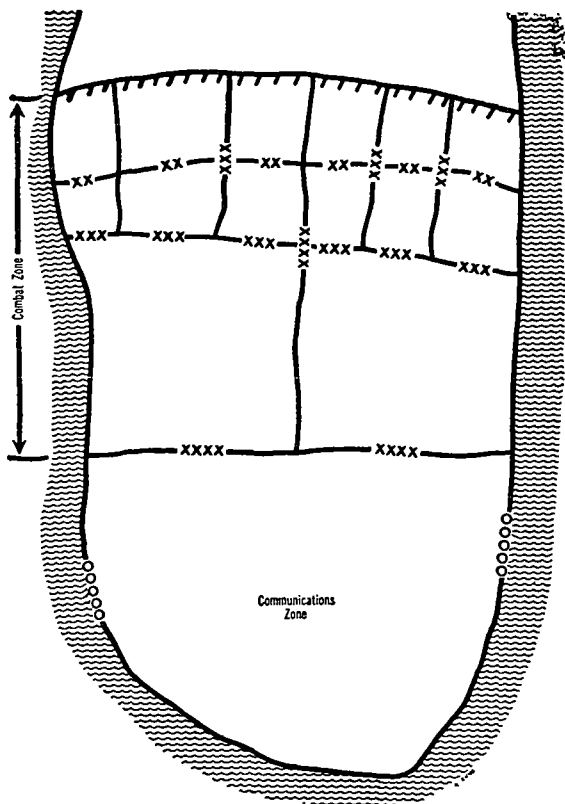


Figure 3. Theater of operations (schematic) on a small land mass (peninsular) with an undivided communications zone.

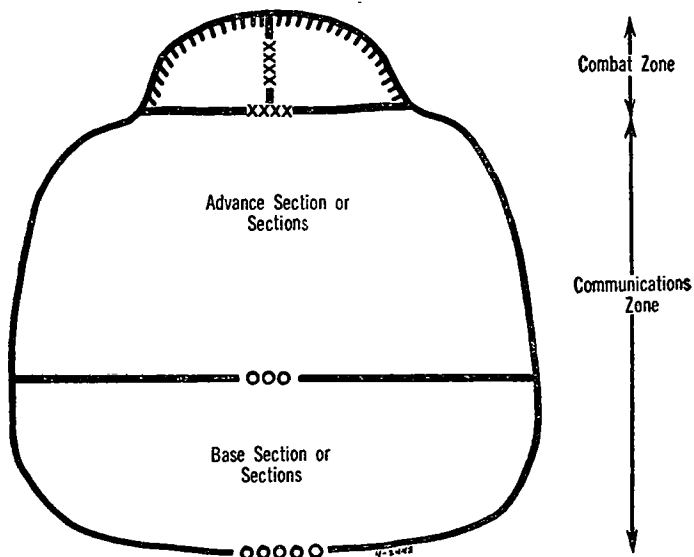


Figure 4. A theater of operations which might result from operations directly from the zone of interior into contiguous territory. In this case, a part of the United States might be the communications zone.

Territory assigned may be part of the zone of interior, part of a theater of operations, or an entirely separate area. The primary mission of an area command normally is other than combat, except for local defense. Typical area commands are base commands, defense commands, metropolitan areas, island commands, or a designated area command in an ocean area composed of several island commands grouped together for centralized control and administration.

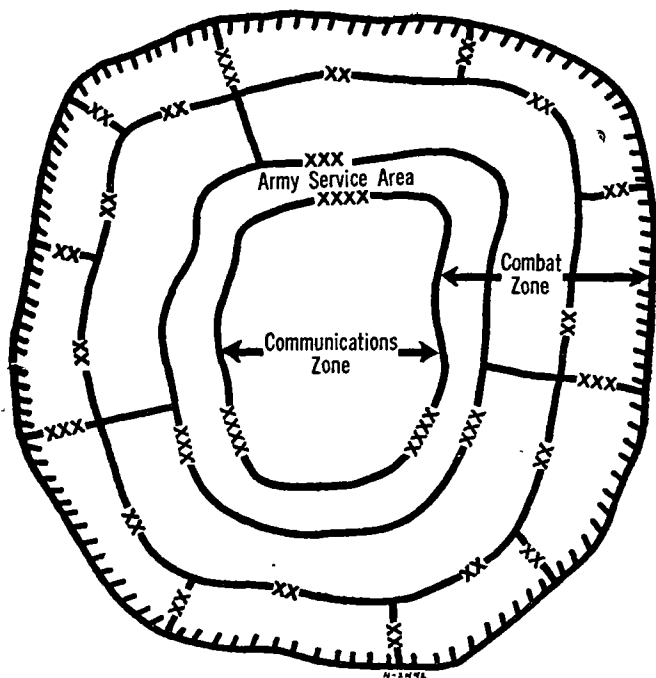


Figure 6. Airhead type theater of operations. The air force territorial organization may differ from this organization, but, in any case, would be superimposed on it.

by the commander of the unit to which it pertains. The army group commander normally delegates his territorial responsibility to armies.

a. The army service area is that territory between the corps rear boundary and the combat zone rear boundary and is controlled by the respective armies. However, army administrative establishments and service troops may be located anywhere in the combat zone.

b. Rear boundaries of armies, corps and divisions are established as far forward as practicable in order to relieve combat commanders of responsibility for the administration of territory not required for their operations.

8. Communications Zone

The *communications zone* is that portion of a theater of operations between the rear boundary of the theater of operations and the rear boundary of the combat zone. It provides the area for proper operation and defense of the supply, evacuation, transportation, service, and other administrative agencies required for rendering support to the combat zone. It is a link in the chain of supply and evacuation between the combat zone and the zone of interior. It may include areas necessary for the operation or support of Air Force or Naval units based outside the combat zone.

a. The organization of the communications zone is adapted to the plan of operations and is based on actual conditions in the theater. The communications zone, therefore, is not organized in the same manner in every theater of operations. The communications zone will be organized, if practicable, to operate without division into sections. However, close support of the combat forces, the volume of support operations, territorial extent of the communications zone, enemy activity, and other considerations may dictate decentralization. In that event, the communications zone may be divided into sections charged with territorial control and logistical operations in their assigned areas. In the establishment of a new theater, the situation and plans for

future development will indicate whether to establish in the theater from the start a single, undivided communications zone; to establish, at first, a single communications zone and later to subdivide it, or to establish sections successively, and later to bring in a communications zone headquarters to control them.

b. In some situations, the communications zone may become so extended in depth and width as to make it desirable to divide it into two or more base sections, intermediate sections, and advance sections, in order to secure more effective operation. Boundaries between sections should be primarily selected with attention to operating missions rather than to geographical or political structures. Defensibility of the area and the structure of the transportation system are important considerations in the selection and location of boundaries. However, with improved storage techniques, increased communications facilities, improved transportation efficiency, and accurate documentation, the requirement for establishing intermediate sections is reduced. In any event, only such subdivision of the area is made as is necessary to carry out effectively the functions of the communications zone.

c. Districts, bases, and/or areas, as defined in subsequent paragraphs, may be established in the communications zone for purposes of local administration, territorial control, defense, or such other purposes as may be required. They may be established by theater, communications zone, or a section headquarters, according to their nature and purpose. Their responsibilities and territorial limits will be prescribed in each case.

d. Within the communications zone, airbase complexes will be under the jurisdiction of the theater air force commander. The communications zone commander will have no responsibilities within that complex except by mutual agreements made by the theater army and air force commanders, or when so directed by the theater commander.

9. Service of Supply

In situations where the theater of operations is not subdivided territorially into a combat zone and a communications zone, but the extent of operations requires an administrative organization separate from the combat organization, a services of supply organization under theater or theater army, having responsibility for service but not for territory, may be substituted for the communications zone organization.

10. Army Base

An army base is a logistical support organization employed only when circumstances make it desirable to place all service operations and all external direct service support under the field army commander. Communications zone and base type troops and facilities are grouped under the army base commander who reports directly to the field army commander. Service units normally assigned to the field army remain under the operational control of the respective chiefs of the field army technical services. The territorial transition in an amphibious operation utilizing an army base might occur in the following phases:

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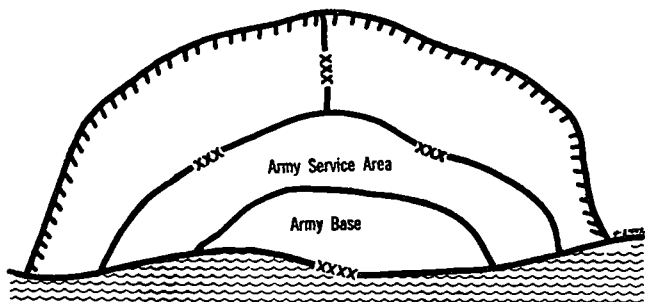


Figure 7. Army service area and base.

a. As soon as practicable after the establishment of a beachhead, an army base under the field army commander, takes over all administrative support and territorial control functions other than those normally the responsibility of the army and subordinate commanders, and develops the beachhead area (fig. 7).

b. As soon as sufficient territory has been gained and it becomes desirable to relieve the field army commander of base operations and base development, the army base is dissolved and these support operations, together with the headquarters and assigned troops are transferred in place to either the communications zone or a designated communications zone section. This is accomplished by moving the army rear boundary forward to coincide with the rear boundary of the army service area (fig. 8).

11. Variations in Communications Zone Organization

Other organizational procedures are possible without the employment of an army base.

a. Circumstances may make it desirable to pool all internal field army service operations and all

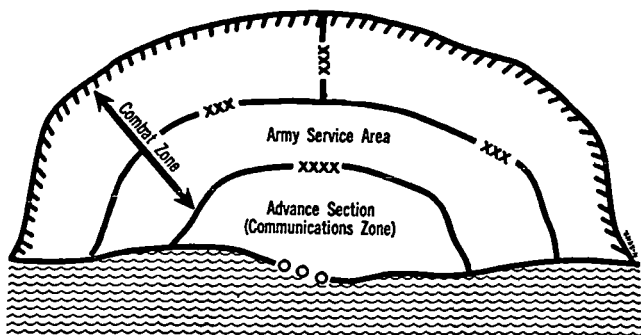


Figure 8. Advance section.

external direct support within a field army. In this instance an army service command (ASCom) is organized to provide the field army commander with a subordinate command for the conduct of administrative support functions and the discharge of territorial functions. As the operation progresses and it is desired to separate communications zone and base type functions from normal field army administrative support functions, the ASCom is dissolved and the service support units are separated by function and type and given to the field army and base or advance section as appropriate. The use of the ASCom places an additional headquarters between the army headquarters and the operating army service units. The ASCom is employed only when, and for the period, circumstances demand it.

b. Limitations on advance of the communications zone may make it necessary to reinforce army logistical operations by the attachment of communications zone troops to army, but without any formal organization of a separate service command.

c. A similar situation may occur in the event an army, with either a defensive or offensive mission, garrisons a base command. Here the tactical organization would be superimposed, territorially, on a base type organization, with the whole under the command of the army commander. The base troops and facilities would be controlled by the army chiefs of technical services.

d. In an occupation situation, an army charged with the occupation mission normally will be supported by a formal administrative agency of a higher command. This agency should be, however, an independent organization, so that it could continue to function if the army should be moved.

CHAPTER 2

COMMAND

Section I. U. S. ARMY AND THEATER

12. U. S. Army

The details of organization and functions of the Department of the Army, and those of the chief of staff, and the army general staff are contained in FM 100-15.

13. Theater Commander (U. S. Forces)

a. The designation of the theater commander, and the organization, functions, and responsibilities of the theater commander are contained in FM 100-15, FM 110-5, and FM 110-10.

b. Special situations may not require all of the component forces to be represented in any particular theater. This requires appropriate modification of the organization shown in figure 9.

c. Normally, service forces within a joint theater are organized unilaterally; that is, each component force (Army, Navy, and Air Force) has its own organization for providing the service support which it requires. Although it is possible that some particular situation might dictate the formation of a joint service support organization for the common support of all component forces in the theater, normally the same results will be obtained by assigning specific common support missions or responsibilities to one component force (see FM 110-5).

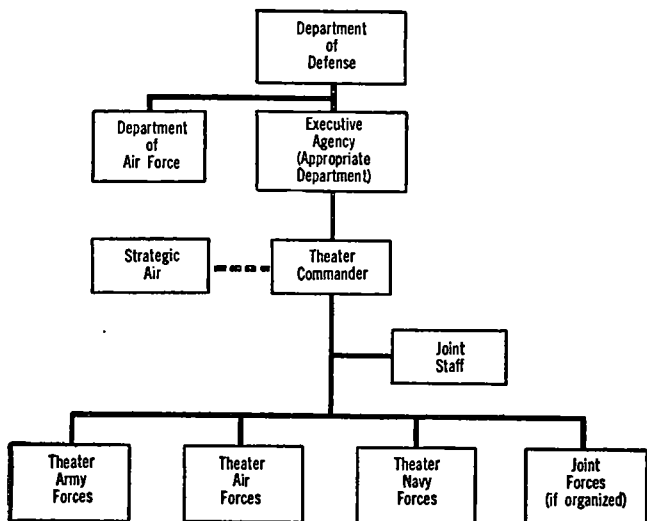


Figure 9. Typical organization chart of a theater of operations, (United States forces only).

d. The headquarters organization normally will be of the general staff type with each subdivision assigned responsibility for supervision of specific functions, or of functions of a specific type or class. Normally, the only special staff sections are those of joint scope or interest, for the exercise of close supervision or control of certain functions which require a high degree of coordination at theater level (see FM 110-5).

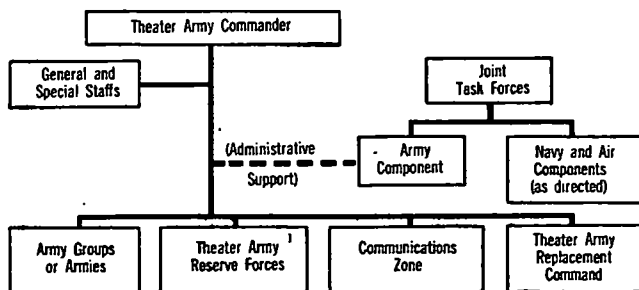
14. Theater Army Commander

The theater army commander is designated by the Department of the Army. He is responsible for the tactical operations of the theater army forces not assigned to a joint force. He is responsible to the

theater commander for the administrative operations of the theater army forces not otherwise assigned. He coordinates his operations with those of the theater navy and theater air force commander. When a joint task force is organized, he is responsible for furnishing support to the army component, and will, in addition, furnish such support to the other components of the joint task force as directed by the theater commander. He exercises command through the commanders of army groups or armies, the army reserve forces, the communications zone, and the theater army replacement command. The theater army commander is largely a supervisor, planner, and coordinator. He decentralizes combat and administrative operations to the maximum degree to his major subordinate commanders (see FM 100-15 and FM 110-5).

15. Theater Navy Commander

a. The theater navy commander is responsible to the theater commander for the tactical employment and administration of the theater navy forces not



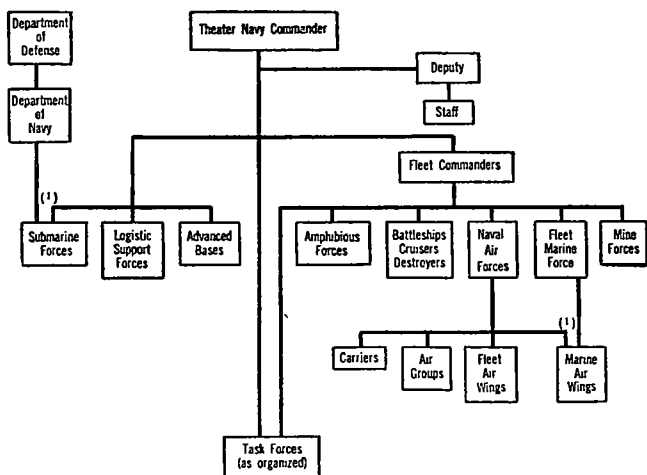
¹ May be established when required.

Figure 10. Typical organization chart of theater army forces.

assigned to a joint force and for coordination with theater army and theater air force commanders.

b. The following definitions apply to figure 11—

- (1) A fleet is a balanced organization of operating forces designed to meet *general* requirements within the theater.
- (2) A task force is a balanced organization of operating forces, formed as directed by fleet or theater navy commander for the accomplishment of a *specific* task.
- (3) Type commanders are those designated for each major type of force: submarines, logistical support forces, amphibious forces, battleships, cruisers, destroyers, naval air forces, fleet marine force, and mine forces.



¹ Either command channel may be used, according to circumstances.

Figure 11. Typical organization chart of theater navy forces (United States forces only).

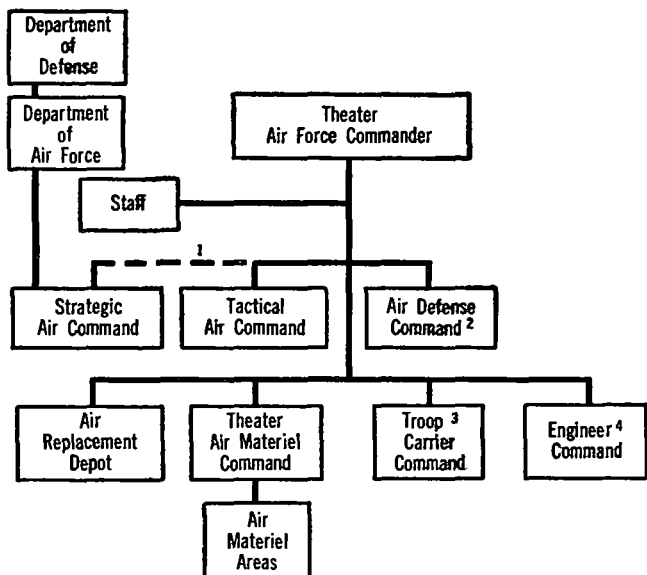
16. Theater Air Force Commander

The theater air force commander is responsible to the theater commander for the operations of the theater air forces not assigned to a joint force for their administrative operations, and for coordination with theater army and theater navy commanders. Since composition of the air forces in a particular theater of operations is determined by the assigned mission, no one fixed organization applies to all theaters. However, theater air forces normally include, as principal components, an air command employed in offensive operations, a command charged with the air defense of the communications zone, an engineer command, and commands responsible for providing necessary services to air units. In addition, an air command utilized for strategic operations may be present in the theater. When so present, it is normally under the operational control of the Department of Defense. Requests for use of this force in support of the theater air mission will be forwarded through the liaison officer of the strategic air command with theater (fig. 12).

17. Relationships of Theater Army, Navy, and Air Force Commanders With Respective Zone of Interior Departments

Although operating under the control of the theater commander, the commanders of the theater army, navy, and air force may remain responsible to the Department of the Army, the Department of the Navy, and the Department of the Air Force, respectively, for activities which are peculiar to and fall within the exclusive jurisdiction of each department. Among the matters for which the component force commanders normally continue to be responsible

directly to their respective departments in the zone of interior are troop basis; doctrines and procedures for organization, equipment, and training of their forces; personnel administration; intelligence; and logistical responsibilities (see FM 110-5 and 110-10). These commanders are responsible to the theater commander for the planning and conduct of operations and administration of their forces (see FM 100-15).



¹ Limited administrative functions.

² Theater commander may retain direct control.

³ May be assigned to a tactical command.

⁴ May be decentralized to tactical air command.

Figure 12. Typical organization of theater air forces (United States forces only).

Section II. COMBAT ZONE

18. Army Group Commander

An army group consists of two or more field armies placed under a designated commander. The army group commander is responsible for the tactical operation of the armies under his command. He estimates the overall administrative requirements to support operations and makes recommendations to the theater army commander for the allotment of appropriate means, including allocation of replacements, to the armies comprising the group. He makes certain that administrative arrangements, policies, and procedures for supply and evacuation of the armies are adequate and not unduly burdensome. The army group commander recommends to the theater army commander the rear boundaries for the armies of his group (see FM 100-15).

19. Field Army Commander

Depending on the organization within the theater, the commander of a field army is responsible to the army group commander, the theater army commander, or the theater commander for the tactical and administrative operations within the army. The field army consists of a variable number of corps and divisions and of service elements for the immediate support of the units within the army area. A typical field army, less details of administrative and logistical elements, is shown in FM 100-15 and on figure 14 of this manual. FM 101-10 contains type combat and service elements which may be assigned to a field army. The army commander is responsible for the organization and operation of the necessary services for immediate support of all units *within*

the army. This requires long-range planning, detailed estimates of personnel and logistical needs, careful study of lines of communications, and constant liaison with adjacent armies, army group (theater army or theater commander), communications zone, and theater army replacement command (see FM 100-15).

20. Army Base Commander

The army base commander commands an army base attached to an army. This command includes all communications zone units which have been placed under army control pending the establishment

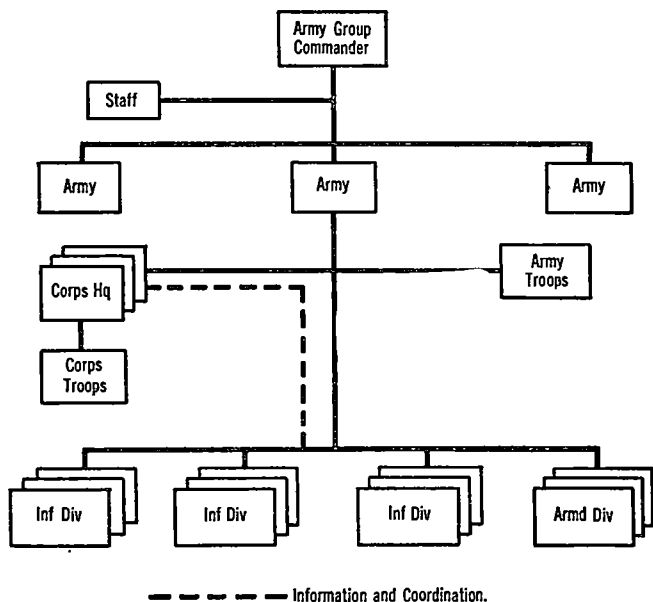


Figure 13. Typical chart of normal channels for administrative matters.

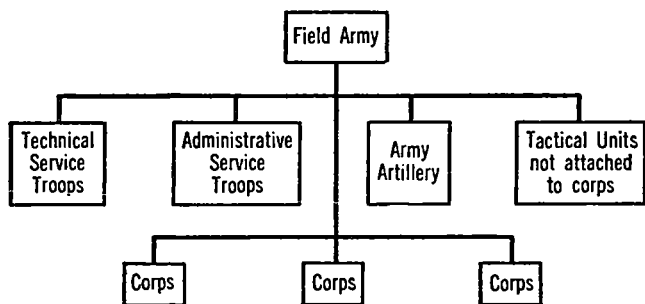


Figure 14. Organization of a representative field army.

of a communications zone. He is responsible to the field army commander for administrative support operations in the area assigned to him in rear of the army service area (see par. 10). The army base organization is used because the normal organization and functioning of the army service elements are not interrupted and an additional headquarters is not interjected between the normal army service elements and army chiefs of technical and administrative services.

21. Corps Commander

The corps commander is responsible to the army commander for combat operations and certain administrative functions. The corps is a tactical unit consisting of a very limited number of organic elements and a variable number of divisions and other units allocated by army in accordance with the tactical situation. FM 100-15 and figure 15 show organization of a typical corps less administrative elements. FM 101-10 shows type units which may be attached to the corps. The corps commander estimates the overall administrative requirements for

an operation and, if necessary, makes recommendations for the allocation of appropriate means to the corps. He normally controls the allocation of ammunition and may control the allocation of any other items if required by the tactical situation. He establishes the rear boundaries of the divisions attached to the corps. For independent operations, the corps must be augmented by the attachment of necessary administrative units.

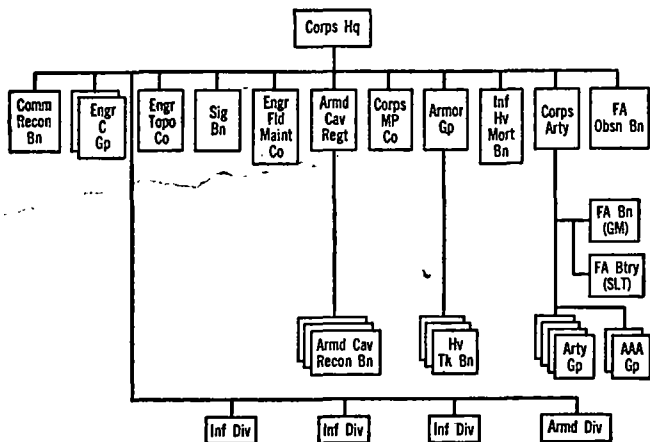


Figure 15. Organization of a representative corps.

22. Division Commander

The division commander is responsible for combat and administrative operations within the division. Normally, the division commander deals directly with the army commander on all matters of administration, except for the allocation of ammunition and the establishment of the division rear boundary. Corps may require the division to furnish copies of periodic administrative reports.

23. Amphibious Support Brigade

The amphibious support brigade is a table of organization and equipment unit (T/O&E 20-300) designed to render logistical support to one army corps (reinforced) during the assault phase of amphibious operations and until relieved by a permanent type logistical organization. It should be drawn as soon as a suitable permanent organization becomes available in order that it may be used in other amphibious operations. For details see FM 60-25.

Section III. COMMUNICATIONS ZONE

24. Communications Zone Commander

a. Depending upon theater organization the communications zone commander is responsible to the theater army or theater commander for administrative support, except personnel replacement, of all Army units located in the theater, and for such administrative support of Navy, Air Force, Allied, and other forces as may be directed. The communications zone commander exercises territorial control within the communications zone. Territorial control is defined as the exercise of authority by a commander, in a geographical area, over all activities falling within his jurisdiction. Territorial control may be delegated in whole or in part, both as to extent of the territory and as to the degree of jurisdiction. Considerations of unity of command usually require that communications zone commanders be given control of civil affairs/military government within the communications zone. Pursuant to directives from theater or theater army, he formu-

lates policies and prepares short-range and long-range plans for the administrative support of current and future operations. He handles routine details of administrative support directly with appropriate zone of interior agencies. The communications zone organization will follow one of the two general patterns described in *b* and *c* below, depending upon the scope of operations and the extent of the area involved.

Unless conditions make it necessary, the communications zone is not partitioned into sections. The communications zone commander charges the chiefs of services with the conduct of all operations of their services throughout the communications zone and with rendering appropriate service support to all Army units and to such Navy, Air Force, Allied, and other forces as may be directed. Communications zone chiefs of service, under this plan, have operational control of the troops of their service and act as staff advisers to the communications zone commander. For certain activities, not the sole responsibility of a single chief of service, subordinate commands may be created. Examples are defense troop organizations, general depots, and metropolitan areas (fig. 16).

- c. (1) In a large theater, or wherever local conditions, such as service to supported troops, transportation, communications, terrain barriers, or defense, make it necessary, the communications zone commander may divide the communications zone into sections and decentralize operations to section commanders. Section commanders are charged with rendering administrative support to

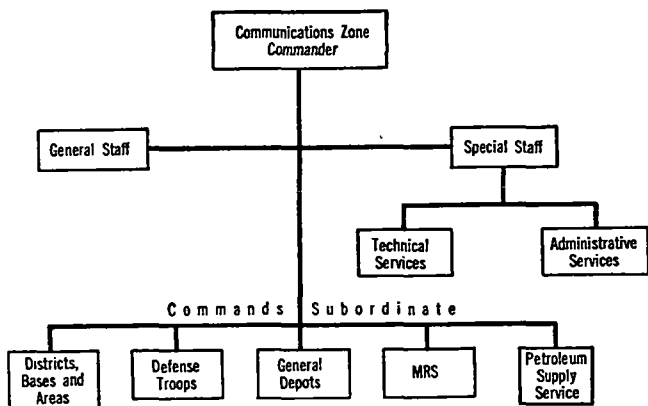


Figure 16. Typical organization of an undivided communications zone.

such forces as may be directed and with responsibility for the conduct of operations and territorial control within the section (fig. 17).

- (2) Under this plan, the role of the chiefs of technical and administrative services is primarily that of advisers to the communications zone commander. They exercise operational control over those units of their services which are not assigned or attached to subordinate commands. They supervise the activities of their services throughout the communications zone through technical channels. Command of units is exercised by the commanders of the sections or other headquarters to which units are assigned or attached and orders to such units must pass through command channels.

- (3) Partition of the communications zone into sections, with the accompanying increase in overhead and lengthened chains of command, may be avoided by the establishment of districts, bases, or areas to relieve the headquarters of burdensome local administrative problems.

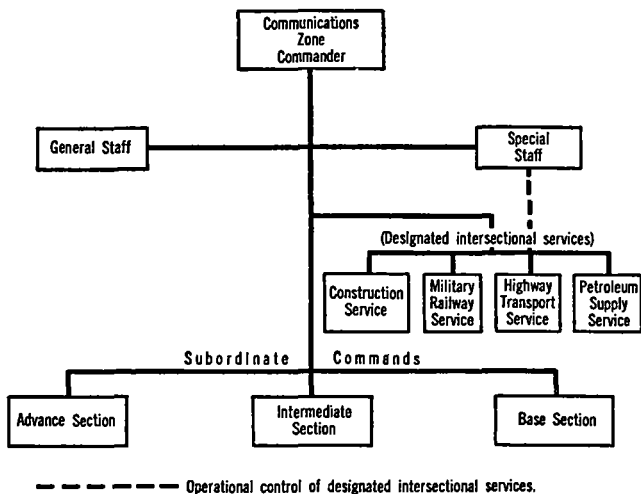


Figure 17. Typical organization of a divided communications zone.

d. No specific organization is prescribed for use under any particular set of conditions. Flexibility is required in the application of the foregoing principles of organization and control. The commander adopts the organization which will accomplish his mission most efficiently.

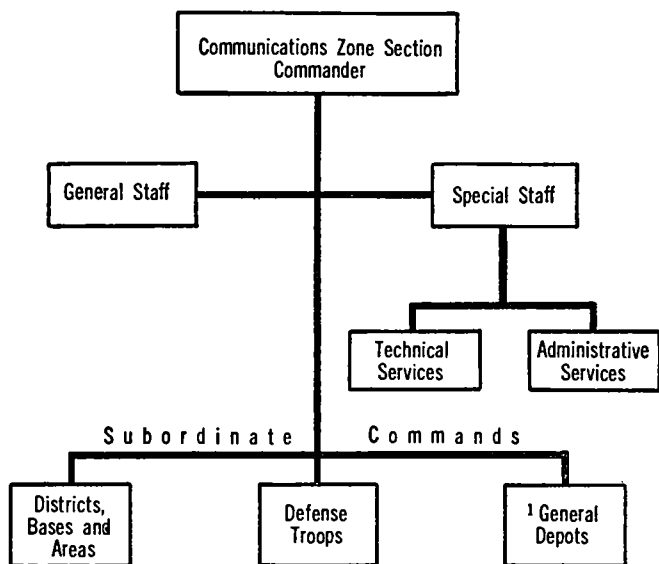
25. Intersectional Services

Intersectional services are defined as highly centralized activities, such as construction services, transportation services, and communications services which cross section boundaries. As an exception to the section commander's responsibility for all operations within his section, the communications zone commander may direct that the operational control of certain designated intersectional services be charged directly to the appropriate chief of service in communications zone headquarters (fig. 17).

26. Section Commander

a. Administrative Support. The section commander is responsible to the communications zone commander for rendering administrative support to such forces as may be directed, for the conduct of all communications zone operations within his section, except for designated intersectional services, and for the territorial control and defense of his section. The section commander normally is charged with local administrative support of intersectional operations.

b. Liaison. The commanders of the communications zone and its sections furnishing direct support to combat forces must maintain close liaison with the supported forces. Representatives of each of these commanders must be present in the headquarters of the other and must cooperate actively in planning and conducting operations. A similar relationship must exist between sections of the communications zone. The importance of such liaison cannot be overemphasized (fig. 18).



¹ General depots are not normally found in Advance Section.

Figure 18. Typical organization of a communications zone section.

27. Districts and Areas

a. Districts and areas may be created as commands directly subordinate to any designated headquarters. Such a command might be assigned to theater headquarters when political considerations, such as the administration of a national capital, require supervision and control at the highest level. Even when the communications zone is divided into sections, it may be desirable for the communications zone commander to retain direct control of certain activities not directly concerned with the support of the

combat forces, especially in the case of small, geographically isolated areas for which he is responsible and which cannot satisfactorily receive direct control and supervision from any section commander. Section commanders may find their employment advantageous, as in the case of a rest area. Areas in which large numbers of troops are concentrated may be defined and a local area commander, usually the senior unit commander present, designated to be responsible for local defense, discipline, traffic control, billeting and allocation of bivouac sites, and similar specifically assigned duties. Similarly, area commanders with specifically designated functions may be established in towns and smaller communities where it is desired to have a local representative of the overall territorial commander. The functions to be delegated to a district or area commander must be specific and are normally held to a minimum consistent with the benefits to be derived. Normally, delegated functions do not include responsibility for service support to other forces nor for control of major service operations except where the district or area is isolated by great distance or by obstacles such as water or inadequate communications.

b. The terms to be used in designating such subdivisions are somewhat overlapping and will depend upon the purpose of the subdivision.

- (1) A district is a geographical subdivision of a communications zone or section thereof, charged with limited administrative and territorial responsibility but not normally responsible for support or control of major service operations.

- (2) An area is a specific territory assigned to a military command. The assignment of specific cities or similar territorial units to subordinate commanders for local control implies areas.

28. Logistical Command

a. The logistical command is a table of organization and equipment organization consisting of a headquarters and headquarters company designed to function with minimum essential personnel and to exercise command over an administrative support force of technical and administrative service units. Augmentation may be required in some circumstances. For administrative purposes, logistical commands retain their identity after assignment even though they may become known under other titles associated with geographic locations and type of assigned responsibilities.

b. Logistical command headquarters and headquarters companies are of three types to provide flexibility in the size and complexity of missions to which they can be assigned.

- (1) Type A is designed to command an integrated organization of the technical and administrative service units ranging in size from 9,000 to 15,000 men. When provided with appropriate service forces, it is capable of furnishing army and communications zone support to a combat force of approximately 30,000 (comparable to a reinforced division).
- (2) Type B is designed to command an integrated organization of the technical and

administrative services ranging in size from 35,000 to 60,000 men. When provided with appropriate service forces, it is capable of furnishing communications zone support to a combat force of approximately 100,000 men (comparable to a reinforced corps).

- (3) Type C is designed to command an integrated organization of the services ranging in size from 75,000 to 150,000 men. When furnished with appropriate service forces, it is capable of providing communications zone support to a combat force of approximately 400,000 men (comparable to a field army). For the support of forces greater than 400,000 men, suitable augmentation must be furnished.

c. The appropriate sized logistical command may be used to provide the command organization for an army base, a small communications zone, a section (advance, base, or intermediate), or a major territorial subdivision of a section such as a district or area.

d. A logistical command may be assigned the mission of administering and rehabilitating an area in which civil means are inadequate because of natural disaster or military action. The mission to be accomplished and the size, population, and significance of the area will determine the type of logistical command required.

29. Transportation Port Headquarters

Transportation ports are operated by the transportation service of the theater, communications zone section, or oversea base in which they are

located. They have the mission of providing for the reception, debarkation, embarkation, and transshipment of troops, animals, supplies, and materiel. They may be charged with responsibility for staging troops or mounting amphibious operations.

30. Relationships—Logistical Command, Amphibious Support Brigades, and Transportation Port Headquarters

The relationship of the transportation port headquarters, amphibious support brigades, and logistical commands, when operating together, is that each complements the other. As such, these organizations, or component elements thereof, might operate separately or might, under any particular set of conditions, be attached in whole or in part one to the other—the attachment depending upon which organization had the primary mission in that particular situation. Normally the amphibious support brigade will initially operate the entire logistical support area with certain elements of port headquarters and logistical command headquarters attached. As the area is stabilized, the latter two headquarters are phased into and the brigade is phased out of operations.

Section IV. OTHER COMMANDS AND FORCES

31. Base Command

A base command is established primarily for the administration of all military operations connected with the base or bases operating within it. The base command may be a part of a theater of operations, in which case the commander is responsible to the theater commander, theater army commander,

communications zone commander, or a section commander.

32. Defense Command

A defense command is established for contemplated operations which are dictated by the strategic defense. It may be either a part of a theater of operations or a separate command. The commander is responsible for tactical and administrative operations; in a theater of operations to the theater commander, and in a separate command to the appropriate executive agency.

33. Combined Theaters of Operation

It is a basic concept that in any future major conflicts United States forces will be combined with the forces of allies in a mutual effort to defeat a common enemy. The locale of such operations would become a combined theater of operations.

34. Combined Forces

A combined force is a grouping of the units of two or more allies acting together under one commander for the purpose of carrying out an assigned mission or operation.

35. Joint Force

Joint force is a general term applied to a force which is composed of significant elements of two or more of the services (Army, Navy, and Air Force), operating under a single commander authorized to exercise unified command or operational control over such a force. There are two types of joint forces:

a. A unified command is a joint force composed of significant assigned or attached components of two or more of the services (Army, Navy, and Air Force),

and constituted and so designated by the Department of Defense or by the commander of an existing unified command established by the Department of Defense. A unified command is established generally when a broad continuing mission requires execution on a significant scale of the respective operational responsibilities of two or more services and necessitates single strategic direction. For further details see FM 110-5.

b. A joint task force is a joint force composed of assigned or attached elements of two or more of the services (Army, Navy, and Air Force) and constituted and so designated by the Department of Defense, by the commander of a unified command, by the commander of a Department of Defense specified command, or by the commander of an existing joint task force. Such a force is established when the mission to be accomplished has a specific objective and requires execution of closely integrated responsibilities involving two or more services on a significant scale; or requires coordination within a subordinate area but does not require overall centralized direction of logistics. A commander of a joint task force exercises logistical coordination or control only to the extent necessary to meet those logistical needs of the subordinate commanders which are essential to the successful accomplishment of his mission and to meet any request of the subordinate commanders for logistical support. For further details see FM 110-5.

36. Military Air Transport Service

The Military Air Transport Service is under the command and direction of the Chief of Staff, United

States Air Force, for the air transportation of personnel and materiel of the armed forces. It is not responsible for tactical air transportation of troops and their equipment or the initial supply and resupply of units in forward combat areas. Normally, it operates within the zone of interior, between the zone of interior and the theaters of operations, and between theaters.

37. Troop Carrier Units

The Tactical Air Command (Troop Carrier) is the principal Air Force element available to the theater commander for the planning, training, and conducting of combat operations requiring air transportation of troop elements, equipment, and supplies into combat, and in evacuating patients, troops, and materiel within the theater. It normally provides air transport service within the theater. Present army and air force agreements provide, in general, that airlift operations within the combat zone as required by the army may be conducted with army aircraft, but that airlift operations to and from the area behind the rear boundary of the combat zone are the responsibility of the air force (SR 95-400-5).

38. Military Sea Transportation Service

The Military Sea Transportation Service is under the command, direction, and control of the Chief of Naval Operations, United States Navy, for the sea transportation of personnel and materiel of the armed forces. It consists of all ships and craft employed in transoceanic, intratheater, and coastwise operations, but does not include those vessels used in harbors and inland waterways.

39. Commander, Theater Army Replacement Command

The commander, theater army replacement command, is responsible to the theater army commander for the administration and operation of the Army replacement system in conformance with Department of the Army, theater and theater army policies. He normally controls all Army replacement personnel in the theater, except those specifically exempted by the theater or theater army commander. He commands all Army replacement units except those assigned or attached to armies, corps, and divisions. He issues directives on the employment of replacement units for local defense in rear areas in accordance with the theater army commander's policy and coordinates with the communications zone commander concerning their disposition and employment.

40. Chief of Service

A chief of service at any echelon of command is the special staff officer representing that service at that echelon. Normally, special staffs of all major commands include representatives from each service. The principal duties of a chief of service are planning, controlling, and supervising, as outlined below.

a. He provides information and technical advice for the commander and the general and special staffs, keeping them informed of capabilities and requirements of elements of his service which are assigned to the command.

b. His plans include coordinating the overall operation of his service at and below his level and assisting the supported force in the attainment of its military objective. He coordinates the development of uniform methods of administrative procedure for

his service; new, improved, or specialized types of supplies to meet the peculiar needs of the command; training policies for his service; and policies on the preparation of service units for defense of installations and for rear area damage control in the event of disaster. He furnishes estimates of requirements and recommends procurement and distribution of the supplies, services, and troops pertaining to his service. He develops the commander's decisions into operational plans for his service. He produces intelligence which is of primary interest to his service for use by the commander, the general and special staffs, and troops of the command.

c. When directed by his commander, he has operational control of all troops of his service not assigned or attached to lower echelons. He coordinates the assignment and relief of personnel and units of his service.

d. He does not have operational control of the chiefs of service or the troops of lower echelons, but does exercise general technical supervision over them and over his service as a whole. Operational plans for his service which will affect such lower echelons are issued through command channels only. He makes such technical inspections and requires such reports as are necessary to insure proper execution of the plans of the commander (FM 101-5).

CHAPTER 3

STAFF

41. General

Each of the commanders previously discussed has a staff to assist him in the exercise of his command responsibilities. The staff assists the commander in the performance of both administrative and operational functions.

a. The staff organization of a unit is designed to fit the responsibilities of the command. However, in most commands, the general staff type organization is used, since it has been found most suitable for large field service organizations.

b. For details of this type of staff organization and its operation, see FM 101-5 and FM 110-5.

42. Planning

Planning is a continuing process in any staff and is carried out concurrently with operations. Planning may be classified as current, short range, or long range.

a. Current planning covers the management of normal day-to-day operations and is the function of the general and special staff sections.

b. Short-range and long-range planning cover successively longer periods ahead. Such planning is a continuing function of all staffs and particularly of the chief of each staff section. When the nature and scope of anticipated operations warrant, the com-

mander may organize a special temporary planning group, usually composed of selected representatives of the staff. Each member of such a planning group may call upon the remainder of his regular section to prepare details. This arrangement insures full understanding and subsequent efficient execution of approved plans.

c. The closest coordination must exist between combat and administrative planning. The time and means available to prepare and carry out administrative plans often limit the ability of a command to carry out combat plans. For this reason, combat plans and administrative plans must be prepared concurrently to insure that the combat plan can be supported administratively. Administrative plans must be executed in time to insure that combat plans or alternative plans can be executed (FM 101-5).

43. Command and Technical Channels

Command and technical channels are used to control the flow of directives, orders, and other official communications between command echelons. They are employed as follows:

a. Command channels are used to transmit directives, orders, instructions, and other official communications to subordinate units and to receive correspondence from them except as noted in *b* below.

b. Technical channels are used by the chiefs of technical and administrative services and the staff officers of lower echelons, within the limits and in the manner prescribed by the commander, to transmit technical reports and instructions not involving variations from command policies and directives (FM 101-5).

CHAPTER 4

SERVICES

Section I. GENERAL

44. Types of Services

a. The services are divided into two types: technical and administrative. The technical services are chemical, engineer, medical, ordnance, quartermaster, signal, and transportation. The administrative services are adjutant general, finance, chaplain, inspector general, judge advocate, provost marshal, special services, public information. Civil affairs troop information and education, and field press censorship. Military government is an administrative service discharged through a separate general staff section. In this manual, technical and administrative services refer primarily to those services within a theater of operations, and they do not necessarily coincide with the organization of headquarters, Department of the Army.

b. All of the services are not necessarily present in all echelons of command. Some of the administrative services listed are found only in higher echelons. At Department of the Army level, public information and troop information and education are grouped under the chief of information. At army group, army, and corps echelon, troop information and education are the responsibility of a special staff section. At each echelon below corps troop infor-

mation and education functions are performed by G3 (S3). At division level each technical service is represented by a special staff section, except transportation which is the responsibility of G4.

45. Components of Service

Each service normally consists of two parts: the special staff officer and his assistants, and the operating units. The duties of the special staff officer and his assistants are listed in detail in FM 101-5. Operating units, either standard or cellular type, are provided to perform the field operations of the service. A command headquarters, such as a group or battalion headquarters, may be used to control field operations. If no headquarters is provided, the control functions are performed by the special staff officer and his assistants.

Section II. TECHNICAL SERVICES

46. Chemical Corps

a. Principal Functions.

- (1) *Supply.* The chemical corps is responsible for determining the requirements for, and procurement, storage, and issue of, chemical, biological, and radiological (CBR) weapons, equipment, and supplies of common usage, exclusive of items specifically the responsibility of other agencies, and munitions or supplies used exclusively by chemical corps troops.
- (2) *Service* (par. 237), Service includes field and depot maintenance of chemical corps items of issue; CBR decontamination of vital areas, large quantities of materials, and

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service installations; large-scale chemical impregnation of protective clothing for storage and issue by quartermaster units; dissemination of technical information pertaining to CBR warfare; collecting and disseminating CBR technical information from captured enemy installations and materiel; training and operation of chemical troop units; operation of schools for training personnel of units within divisions and smaller units in CBR; technical advice in the handling, processing, and storing of CBR materiels and in the techniques of CBR operations; laboratory tests of chemical corps supplies and equipment; and laboratory examination and analysis of enemy chemical and radiological agents and materials. Laboratory analysis and identification of biological agents are the responsibility of the medical service.

b. Principal Field Installations. Principal field installations include depots, supply points, maintenance shops, impregnating plants, laboratories, and CBR schools and training centers.

c. Principal Troop Units. Troop units are command units, combat support units, and chemical service units.

- (1) Command units are chemical group (field army or communications zone) headquarters detachments; and chemical battalion headquarters and headquarters detachments.
- (2) Combat support units are chemical smoke generator battalions.

- (3) Chemical service units are depot companies, supply teams, maintenance companies and teams, decontamination companies and teams, processing (impregnating) companies, laboratories, and technical intelligence teams.

47. Corps of Engineers

a. Principal Functions.

- (1) *Supply.* Supply includes determination of requirements for, and procurement, storage, and issue of, engineer supplies and materials, equipment, and spare parts, including support less requirements for all air force construction.
- (2) *Service* (pars. 283-242). Service includes design, construction, rehabilitation or repair, and maintenance of structures of every character, except signal communication systems and minor maintenance of railways; clearance of obstacles; demolitions; installation, and/or rehabilitation, maintenance, and operation of fixed refrigeration plants, pipeline facilities, water supply points, and utilities, which are of general service and are not specifically assigned to other branches of services; insect and rodent control and disinfestation of buildings; surveying, mapping, production and distribution of maps; quantity reproduction of aerial photographs for use throughout the Army, exclusive of reproduction and distribution of photographs taken by organic army aircraft; supervision and in-

spection of camouflage technique; generation of certain gases; operation of sawmills and aggregate plants; dredging operations; fire fighting and fire prevention; acquisition, administration, and disposal of real estate; settlement of claims arising from the use and occupancy of real estate where no claims officer is present; and maintenance and repair of engineer supplies and equipment. Also included are dissemination of technical information, technical advice concerning safety in military construction, specialist training of engineer personnel, training and operation of engineer units for all missions, and advice and assistance to troop units other than engineer who, during combat operations are required to engage in construction and fortification, in mine warfare, and in assault of fortified positions. Service also includes the collection, processing, and dissemination of engineer intelligence for use by the commander, general and special staff, and troops. Engineer intelligence includes intelligence on the terrain, intelligence on engineer materiel, and intelligence on those activities and organizations of the enemy that are analogous to those of the corps of engineers.

b. Principal Field Installation. Principal field installations include depots, supply points, maintenance shops, pipelines, water purification and distillation installations, central utilities establishments, engineer schools, and engineer training centers.

c. Principal Troop Units. Principal troop units

include command, combat support, construction, maintenance and supply, topographic and intelligence, and miscellaneous units.

- (1) Command units include engineer brigades, engineer combat groups, engineer battalions, and platoon, company and battalion headquarters teams provided in the engineer service organization. (T/O & E 5-500A.)
- (2) Combat support units include divisional engineer battalions for infantry, armored, and airborne divisions; combat engineer battalions, bridge units, and shore battalions.
- (3) Construction units include engineer construction battalions, equipment companies, dump truck companies, port construction companies, and pipeline companies.
- (4) Maintenance and supply units include engineer maintenance and supply groups, depot battalions and companies, field and depot maintenance companies, parts depot companies, supply point companies, water supply companies and forestry companies.
- (5) Topographic units include engineer aerial photo reproduction companies, engineer topographic companies (corps), engineer topographic battalions (army), engineer base topographic battalions, and topographic teams of the engineer service organization. (T/O & E 5-500A).
- (6) Intelligence units including engineer technical intelligence teams (collection), engineer technical intelligence teams (research),

engineer terrain teams, and others formed to meet specific requirements; such as, flood prediction and landing beaches.

- (7) Miscellaneous units include dredge crews, utility detachments, well drilling teams, gas generating teams and other cellular teams which are small replicas of larger T/O & E units.

48. Medical Service

a. Principal Functions.

- (1) *Supply.* Supply includes determination of requirements for, and procurement, storage, and issue of, medical, dental, and veterinary supplies and equipment; and property exchange.
- (2) *Service (par. 245).* Service includes collection, sorting, evacuation, and care of sick and wounded; prevention of disease; dental service; direction and supervision of public health measures only so far as they affect the military forces; nutrition and sanitation among military personnel, prisoners of war, and other persons held in camps under military control; veterinary service to include inspection of foods of animal origin; physical examinations of personnel; immunization; maintenance and repair of medical supplies and equipment; preparation and disposition of medical service records and reports, including investigations and surveys; specialist training of medical service personnel; training and operation of medical units; and coordination and assistance in the

prevention of accidental injuries. The Army Medical Service is charged with the analysis and identification of enemy biological agents. In coordination with the chemical corps, the medical service develops active and passive defense measures against CBR warfare. Service will also include dissemination of information on the operation, maintenance, and exploitation of captured medical service equipment and supplies. In cooperation with the Corps of Engineers, performs bacteriological analysis of water and furnishes technical assistance on water supply quality.

b. Principal Field Installations. Principal field installations in the theater of operations are aid stations, collecting stations, clearing stations, mobile army surgical hospitals, evacuation hospitals, convalescent centers, army medical field laboratories (including dental), medical holding companies, medical supply depots and supply points, ambulance trains, dispensaries, field, station, and general hospitals, unit receiving centers, hospital centers, area and supplemental dental service, medical technical schools, and training centers.

c. Principal Troop Units. Principal medical troop units include command units, evacuation units, hospitalization units, maintenance and supply units, and miscellaneous units.

- (1) Command units include headquarters and headquarters detachments, medical group; headquarters and headquarters detachments, medical battalion (separate); and headquarters hospital center.

- (2) Evacuation units include medical battalions of infantry, armored, and airborne divisions; medical collecting companies (separate); medical ambulance companies (separate); helicopter ambulance units; medical holding companies; and ambulance trains.
- (3) Hospitalization units include medical clearing companies (separate), mobile Army surgical hospitals, semimobile evacuation hospitals (400 bed), field hospitals (400 bed), evacuation hospitals (750 bed), station hospitals, convalescent centers and general hospitals.
- (4) Maintenance and supply units include medical depots, communications zone; army medical depots; and medical laboratories.
- (5) Miscellaneous units include professional, supply, maintenance, optical, and food inspection teams.

d. Principal Dental Units. Principal dental troop units include the dental service detachment providing area dental service, and the dental detachments and fixed dental clinics providing supplemental dental service.

e. Principal Veterinary Units. Principal veterinary units include food inspection detachments, animal service detachments, headquarters animal service teams, evacuation detachments, hospital detachments, evacuation hospitals, and field and general hospitals.

49. Ordnance Corps

a. *Principal Functions.*

- (1) *Supply.* Supply includes determination of requirements for, and procurement, storage, and issue of, ordnance materiel; and technical supervision of organizational supply, including technical inspection and assistance.
- (2) *Service* (par. 246). Service includes repair, renovation, reclamation, and modification of ordnance materiel, including depot maintenance of materiel procured for other services of the armed forces; preparation, collection, and dissemination of technical information, operating and maintenance instructions pertinent to ordnance materiel, including allied and enemy materiel; collection, evaluation, and dissemination of ordnance technical intelligence; explosive ordnance disposal; technical inspection of ordnance materiel, including inspection and technical supervision of organizational maintenance; collection, evacuation, and reclamation of ordnance supplies and equipment, including captured or abandoned ordnance supplies and equipment; specialist training of ordnance personnel and training of ordnance units; establishment of standards of serviceability for ordnance equipment; testing of ordnance materiel; operation of ordnance installations and activities including special weapons support; and the providing of technical advice and assistance concerning safety procedures.

b. Principal Field Installations. Principal field installations include ammunition depots and supply points, ordnance general supply depots, vehicle assembly plants, vehicle and artillery parks, maintenance shops, collecting points, and ordnance schools and training centers.

c. Principal Troop Units. Basically all ordnance units fall into one of the following types: direct support units, heavy support units, depot support units, command units, and special units.

- (1) Direct support units include Ordnance direct support companies, Ordnance direct automotive support companies, Ordnance guided missiles support companies, Ordnance special weapons support battalions, and Ordnance recovery companies.
- (2) Heavy support units include reclamation and classification companies, ordnance heavy maintenance companies, ordnance heavy automotive companies, ordnance field supply companies, and ordnance artillery and vehicle park companies.
- (3) Depot support units include Ordnance collecting point companies, depot maintenance units, Ordnance automotive rebuild battalions, Ordnance tire repair companies, Ordnance supply depot companies, Ordnance special weapons depot battalions, Ordnance motor vehicle assembly companies, Ordnance park companies, Ordnance field maintenance companies, and Ordnance ammunition depot companies.
- (4) Command units include Army Ordnance sections, corps Ordnance sections, head-

- quarters and headquarters companies, Ordnance groups, and headquarters and headquarters detachments, Ordnance battalions.
- (5) Special units (T/O&E 9-500 units) are normally less than company size and are provided for the accomplishment of two purposes: to augment normal capabilities of standard units of company size or larger, (these units include platoon headquarters (separate), general supply teams (basic), ammunition supply teams (basic), and automotive maintenance teams (basic)) and for the accomplishment of special tasks for which no other unit has the personnel, skill, tools, and/or ability to accomplish. These units include explosive ordnance disposal teams, ballistic and technical service teams, technical intelligence teams, and fire control equipment repair teams.

50. Quartermaster Corps

a. Principal Functions.

- (1) *Supply.* Supply includes determination of requirements for, and procurement, storage, and issue of, quartermaster supplies and equipment, to include quartermaster air equipment such as air delivery containers.
- (2) *Service* (par. 247). Service includes collection and evacuation of salvage, excess, and captured quartermaster supplies and equipment. Other service support includes the maintenance and repair of quartermaster items of issue; recovery and maintenance of personnel and cargo parachutes, and aerial

delivery and heavy drop equipment; animal transportation and remount; labor pools (except prisoner of war), operation of petroleum tank farms and bulk petroleum storage; can and drum manufacturing, cleaning, reclamation, and filling; petroleum products laboratory operations; laundry and dry cleaning; disinfestation of clothing and equipage; mobile bath units; bakery; inspection and supervision of food service program and refrigeration (except fixed refrigeration installations). Additional quartermaster services are operation of sales commissary stores; quartermaster aerial supply and packaging; purchase and contract service (except in headquarters having a purchasing officer); operation of baggage warehouses and effects depots; graves registration service; training and operation of quartermaster troop units; conduct of quartermaster schools; dissemination of technical information concerning friendly and captured enemy quartermaster equipment and supplies, and furnishing technical advice and assistance concerning safety in the handling and storing of materials; and other quartermaster operations.

b. Principal Field Installation. Principal field installations include quartermaster supply and distributing points, depots, labor pools, sales commissaries, laundries, and dry cleaning plants, bakeries, and other installations necessary to perform quartermaster services, including schools and training centers.

c. Principal Troop Units. Principal troop units include command units, supply units, service and maintenance units, and miscellaneous units.

- (1) Command units include headquarters and headquarters companies, quartermaster depots, and quartermaster group and battalion headquarters.
- (2) Supply units include petroleum supply company, quartermaster company supply depot, parts company, subsistence supply companies, petroleum depot, clothing and general supplies depot, and subsistence depot companies. Division quartermaster units, because of their supply functions, also may be included in this category, but they provide, in addition to supply, such services as salvage collecting, laundry, troop bathing, and graves registration. Amphibious support brigade quartermaster companies have supply and service functions similar to those of the division quartermaster units, except that laundry and bath facilities are not provided.
- (3) Service and maintenance units include the following type companies: bakery, refrigeration, aerial supply, bath, laundry, salvage, reclamation and maintenance, clothing and textile repair, mechanical and metal repair, air equipment repair and depot parachute supply and maintenance, parts, graves registration, and service. Also included in this category are special hospital laundry detachments, office machine repair detachments, clothing and equipment repair de-

- tachments, large drum manufacturing companies, petroleum products laboratories, and drum cleaning and filling detachments.
- (4) Miscellaneous units include mobile sales companies, central identification laboratories for deceased personnel, quartermaster pack and animal depot companies, and specially organized supply and service teams operating under a quartermaster service organization.

51. Signal Corps

a. Principal Functions.

- (1) *Supply.* Supply includes determination of requirements for and procurement, storage, and issue of items of signal supplies, equipment, and spare parts, and also the procurement of commercial communications facilities for all agencies of the Army.
- (2) *Service* (par. 248). Service includes planning, installation, maintenance, and operation of all signal communication systems, data transmission systems and telemetering, (except within units which provide communications personnel of their own branch or service), television and electronic warfare systems, and provision of field and depot maintenance of all items of signal equipment. Additional services are collection, evaluation, and dissemination of signal technical intelligence; dissemination of information on the operation, maintenance, and exploitation of captured signal equipment and supplies; technical inspection of signal

equipment and organizational maintenance thereof; specialist training of signal personnel and the training and administration of signal units; pigeon training; cryptography; and photography, including the operation of film libraries and equipment exchanges.

b. Principal Field Installations. Principal field installations include wire network, carrier, radio relay, switchboard, telephone, teletypewriter, and associated equipment; radio stations; communications centers; signal depots; signal maintenance shops; photographic laboratories and film libraries; and signal schools and training centers.

c. Principal Troop Units. Principal troop units include command and control, combat support, installation and construction, operations, maintenance, supply, and miscellaneous units.

- (1) Command and control units include headquarters and headquarters company, signal group, and signal battalion; and headquarters detachments for signal companies and miscellaneous units.
- (2) Combat support units include signal operations battalions, signal support battalions, corps signal battalions, division signal companies, and electronic warfare field units, companies, or teams attached to field units.
- (3) Installation and construction units are battalions, companies, and teams for wire, radio, and cable installation and construction.
- (4) Operations units are battalions, companies, and teams for the operation of radio and

wire systems, communications centers, and photographic facilities.

- (5) Maintenance units are companies and teams for maintenance and repair of signal equipment in the field and at depots.
- (6) Supply units are companies in depots and teams attached to field units.
- (7) Miscellaneous units are photographic teams, signal intelligence teams, and pigeon teams attached to field units.

52. Transportation Corps

a. Principal Functions.

- (1) *Supply.* Supply includes determination of requirements for, procurement, storage, and issue of, transportation corps equipment and supplies.
- (2) *Service* (pars. 194–226). Service includes transportation of property of the Army, Army personnel, and their personal possessions by land (except pipelines) and water utilizing both military and civilian transportation systems; determination of requirements for movement control over transportation of personnel and property of the Army by land, water, and non-tactical air transport; operation of the inland waterways, military railways, highway transport; operation of water craft for the Army (exclusive of vessels of the Military Sea Transportation Service, boats operated by the Corps of Engineers, and air force aircraft crash rescue boats), railway shops, water ports, and facilities and

activities pertaining thereto; maintenance and repair of army aircraft and transportation equipment and supplies; specialist training of transportation personnel and training and operation of troop units of the transportation corps; and furnishing technical advice and assistance concerning safety in transportation. Service also includes dissemination of information on the operation, maintenance, and exploitation of captured transportation equipment and supplies.

b. Principal Field Installations. Principal field installations include water ports, railway, highway, and water terminals, supply depots, repair shops, army aircraft parks and repair installations, administrative motor vehicle pools, staging areas, schools, and training centers.

c. Principal Troop Units. Principal troop units include command units, operating and maintenance units, and supply and repair units.

- (1) Command units include port command headquarters; general headquarters, military railway service and railway group headquarters; highway transport division headquarters, highway transport group headquarters, and various battalion headquarters.
- (2) Supply and repair units include base depot companies, floating spare parts depots, railway shop units, aircraft maintenance units, and marine ship repair units.
- (3) Operating and maintenance units include port units (water); harbor craft and small

boat units; transportation boat battalions; inland waterway units; marine and Army aviation maintenance units; railway operating and maintenance units; car, truck, and amphibious truck units; helicopter units; and movement control units (FM 55-10).

Section III. ADMINISTRATIVE SERVICES

53. Adjutant General's Corps

a. Principal Functions. The principal functions of the adjutant general are set forth in FM 101-5.

b. Principal Troop Units.

- (1) Army postal units and base post offices.
- (2) Machine records units.
- (3) Special services units.
- (4) Army bands.
- (5) Army-Air Force postal service (TM 12-205).
- (6) AG administrative support detachments.
- (7) AG publications centers.
- (8) AG publications depots.
- (9) AG printing plants.
- (10) Records centers.

54. Chaplains

a. Responsibility. The chaplain is charged with functions pertaining to the religious and moral life of the command, including dependents of military personnel and authorized civilians.

b. Principal Functions. The principal functions of the chaplain are set forth in FM 101-5.

55. Civil Affairs/Military Government

a. Objectives. The objectives of the civil affairs/military government are to support military opera-

tions, fulfill obligations arising from treaty agreement or international law, and to support and implement national policies. During combat operations, the primary mission is the support of the branches and services through control of the civilian population and local resources. This involves restoration of law and order, restoration or support of civil government, emergency aid to civilians in distress, and assistance in the exploitation of local resources for furtherance of the war effort.

b. Principal Functions. Civil affairs/military government encompasses a wide variety of functions, depending on the nature of the operation. Each is handled in a manner which ensures the most efficient and economical use of military personnel and services. The functions include civilian law and order; political government and administration; courts and administration of law; civilian supply; public health and sanitation; censorship of public information media, civilian communications, including postal service; public utilities; currency and banking; public finance; commodities, prices and rationing; agriculture; industry and manufacture; commerce and trade; labor relations; arts, monuments, and archives; custody and administration of property; disposition, repatriation, or restoration of displaced persons and enemy nationals; public welfare; and civilian education (FM 27-5).

c. Troop Units. The principal civil affairs/military government units are the military government platoon, company and group, each made up of cellular teams (par. 254) and area headquarters units, type A and B. The strength and capabilities of each unit except headquarters units, may be

increased or decreased by addition or subtraction of appropriate cellular specialist teams, depending on the strength and qualifications required in the locality where the unit will operate.

56. Finance Corps

a. Principal Functions. The principal functions of the finance and accounting officer (finance officer in tactical commands) are set forth in FM 101-5.

b. Principal Field Installation. The principal field installation is the theater finance and accounts office through which all accounts are controlled.

c. Principal Troop Units. Principal troop units are—

- (1) Finance sections organic to divisions, corps, armies, army groups, and logistical commands.
- (2) Finance disbursing sections (teams) to provide finance service to units and personnel in the theater of operations.

57. Comptroller

The comptroller renders service to the command by conducting surveys, and collecting, evaluating, and analyzing data. He recommends actions to the commander which will result in the most effective and economical use of resources within the command. Whenever the office of comptroller is established, finance and accounting activities come under his general supervision (see FM 101-5).

58. Inspector General

a. Principal Functions. The principal functions of the inspector general are set forth in FM 101-5.

b. Object of Inspections. The object of inspections

is to promote general efficiency; to insure that laws, orders, and regulations are complied with; to observe and report upon the disciplinary and administrative efficiency of commands, officers, and troops; and to consider complaints affecting individuals, and allegations concerning conditions which are detrimental to the service.

59. Judge Advocate General's Corps

a. Principal Functions. Principal functions of the staff judge advocate are set forth in FM 101-5.

b. Claims Service. A claims service is established in each theater under the supervision of the staff judge advocate. Army regulations provide for a chief of service and establishment of such branch offices as may be required. The service is charged with responsibility for investigation, processing, and disposition of claims arising from service-connected accidents or incidents, and such other claims as may be assigned by higher authority. (AR's 25-25, 25-60, 25-90, and 25-100.)

60. Military Police Corps

a. Principal Functions. The principal functions of the provost marshal are set forth in FM's 101-1, 101-5, 19-40, and 19-90.

b. Principal Field Installations. Principal field installations include prisoner of war collecting points, cages, and camps; internment camps for civilian internees and enemy aliens in Army custody; confinement facilities for military prisoners; traffic control posts and information posts; straggler control posts; and criminal investigation crime laboratories.

c. *Principal Troop Units.* Principal troop units include military police companies and battalions, post, camp, and station companies, guard companies, escort guard companies, prisoner of war processing companies, and military police service units and detachments for prevention and investigation of crime and for other police services.

61. Public Information

a. *Principal Function.* Public information is that program which provides the people of the United States with information about their Army. It seeks to foster and maintain public understanding and acceptance of the Army and provides factual information and professional opinion on the Army's position in national security. The exercise of the public information function and the furthering of favorable relations with the public are responsibilities of command extending through all echelons and ranks (FM 101-5).

b. *Service.* The services include the following:

- (1) Furnishing those materials necessary to provide the people of the United States with information of the activities, policies and programs of the Army. Such materials include press releases, photographs, motion pictures, and other appropriate items which are furnished through established channels. This service includes appropriate assistance and cooperation for local civilian communities.
- (2) Advice and assistance to the commander and his staff in dealing with national and local representatives of the press, television

and radio, and other information media, maintaining friendly relations with the civilian community and obtaining public recognition of the achievements of the command collectively and individually.

- (3) Advice to the commander and his staff on the probable public reaction to the activities, plans, and policies of the command, insuring that the public information implications are considered before implementation.

c. Principal Troop Units. Principal public information troop units include headquarters teams and operations teams.

- (1) Headquarters teams exercise control of a press camp for support of accredited correspondents.
- (2) Operations teams supplement organic personnel in the public information function or perform this function for units or agencies not provided with organic personnel.

62. Field Press Censorship

a. Functions. Field press censorship has the following functions:

- (1) To insure the prompt release to the public of the maximum of information consistent with security.
- (2) To prevent the disclosure through news material of information which will assist the enemy.

b. Service. Field press censorship in combat areas consists of the security review of news material. The Chief of Information, Department of the Army,

is responsible for the direction of field press censorship in combat areas of concern to the Army. Field press censorship will be governed by the principle that the maximum of information will be released to the public with a minimum of time consumed in review.

c. Principal Troop Units. Principal troop units include headquarters teams and operations teams.

- (1) Headquarters teams exercise control of and supplement the activities of operations teams.
- (2) Operations teams provide field press censorship control over the news material produced by accredited public information media representatives, and also over the news material produced by the public information, psychological warfare, and other information-releasing agencies normally contained in a theater of operations.

63. Troop Information and Education

a. Principal Functions.

- (1) The principal functions of the troop information and education office are set forth in FM 101-5.
- (2) Troop information and education, in furtherance of information and education policies and objectives established by the Secretary of Defense and the Secretary of the Army, assists commanders in developing among military personnel, intelligent, cooperative and loyal effort toward the accomplishment of their mission.
- (3) Troop information and education programs provide the means by which members of

the Army are furnished current news and adequate information, and can improve their education.

- (4) The troop information program is used to counteract and expose enemy propaganda and to explain the nature of psychological warfare.
- (5) Troop education provides an opportunity for military personnel to further their educational achievement through the following levels: fourth grade, eighth grade, high school, college, and in special subjects, while on active military duty.

b. Service.

- (1) Preparation, publication and distribution of printed Army news, informational and orientation media.
- (2) Provision of education services of the United States Armed Forces Institute (USAFI), and the establishment of Army Education Centers.
- (3) Establishment and operation of troop information radio broadcasting networks and stations in oversea commands, when authorized.
- (4) Provision of special troop information programs such as those for replacement troops and those preceding a major combat operation.
- (5) Advising the commander and his staff on the probable troop reaction to the activities, plans and policies of the command, insuring that the troop information implications are considered before implementation.

c. Principal Troop Units. Table of Distribution units to include:

- (1) Army Troop Information and Education radio stations.
- (2) Army newspapers.
- (3) Education centers.

64. Special Services

a. Mission. Special Services is charged with the policy implementation and operational direction of matters pertaining to recreation, sports, library activities, and welfare. The objective of special services is to increase the effectiveness of the Army by a planned program of recreation activities. Its objectives are achieved primarily through the organization, facilities, and services furnished by the Army and Air Force Exchange Service, the Army and Air Force Motion Picture Service, the Army Recreational Branch, and civilian welfare and recreational organizations.

b. Principal functions.

- (1) Special Services provide entertainment and recreation facilities for military and other authorized personnel.
- (2) Formulate plans and policies for the organization and operation of recreation activities. This may include entertainment programs, library services, service clubs, craft shops, sports activities, and rest camps. It may also establish and operate recreation centers, leave areas and post exchanges.
- (3) Special Service acts as coordinating agent for civilian organizations with respect to welfare of the troops.

(4) It controls the requisitioning and issue of special service supplies and equipment.

c. Troop Units. Personnel for the operation of special service activities are provided from special service companies and theater bulk allotments.

d. At field army headquarters, functions will normally be performed by the commanding officer of the special services company in addition to his other duties. At corps and division and in headquarters of those commands which operate under a T/D which does not provide for a full-time special service officer, the functions will be assigned by the commanding officer to an officer of his staff, as appropriate.

65. Military History

a. Mission. Department of the Army historical studies are prepared and published for the purpose of providing background and precedent in the development of military plans, doctrine, and techniques.

b. Principal Functions of the Historical Service. The principal functions of the historical service and unit historians are set forth in FM 101-5.

c. Personnel. Military historical detachments are assigned to theaters to collect required factual information on units and installations having no historical personnel organically assigned.

66. Psychological Warfare

a. Functions. The principal functions of the psychological warfare officer are set forth in FM 101-5. Psychological warfare provides a planned and coordinated application of measures designed to influence the thought, attitudes and behavior of the enemy or of other foreign groups to assist in gaining national objectives. Psychological warfare measures

require close coordination with all staff sections in order that adverse effects on friendly forces do not outweigh the effects on the enemy.

b. Principal Troop Units.

- (1) *Radio Broadcasting and Leaflet Group.* (Assigned at theater level.)
- (2) *Loudspeaker and Leaflet Company.* (Assigned to field armies.)
- (3) *Consolidation Company.* (Cellular teams in support of civil affairs/military government operations.)

67. Women's Army Corps

a. General. The Women's Army Corps is a permanent component of the Army by statute. All laws applicable to male officers, warrant officers, and enlisted men of the Army are in general applicable respectively to officers, warrant officers, and enlisted women of the Women's Army Corps (WAC) (AR 625-5).

b. Mission. The mission of the WAC is to provide for the assimilation and appropriate utilization within the Army, of voluntary woman power of the Nation, with the exception of those women officers appointed in the Army Medical Service.

c. Utilization.

- (1) *Assignment.* All officers, warrant officers, and enlisted women of the WAC are assigned to duty as the needs of the service require. They may be assigned to table of organization or table of distribution positions. The Department of the Army prescribes the military occupational specialties

in which they may be utilized (SR 615-25-36 and TM 20-605).

- (2) *Command.* When assigned to Army organizations or installations for duty, WAC enlisted personnel are normally assigned or attached to WAC detachments for administration. Exceptions to this policy are found where WAC personnel are present in such numbers as to justify organization into company- and battalion-size units.
- (3) WAC personnel may be attached to any of the branches of the service except to the combat branches.
- (4) WAC personnel may *not* be employed on—
 - (a) Combat duty.
 - (b) Duty requiring physical strength beyond that of an average woman.
 - (c) Duties or assignments unacceptable to the American people as suitable employment for women.
- (5) WAC personnel may serve in all overseas installations, subject to policies prescribed by the Department of the Army. They will be assigned to duty only in fixed units as defined in SR 310-30-1. Enlisted women normally will be assigned duty only in locations where they can be quartered in groups of fifty or more as provided in AR 625-5.

CHAPTER 5

PERSONNEL

Section I. STRENGTHS, RECORDS AND REPORTS

68. General

a. Strengths obtained from personnel strength reports and locations of units obtained from station lists must be known by the commander and his staff in order that they may plan and execute operations.

b. Personnel records and reports consist of individual personnel records and reports and unit personnel records and reports (AR 345-5 and FM 101-1).

69. Records, Reports, and Accounting

a. Personnel records and reports may consist of the morning reports, casualty reports, MRU rosters, the personnel daily summary, the periodic personnel report, and others.

b. Personnel accounting requires a uniform personnel accounting system based on the utilization of machine records and machine records units functioning as an integral part of the headquarters to which they are assigned.

c. Details concerning personnel records, reports, and accounting are contained in FM 101-1, FM 101-5, and SR 330-10 series.

70. Loss Reporting

a. Prompt and efficient loss reporting must be established and maintained because of its impact on morale, effectiveness of the command, and the replacement system.

b. Details on loss reporting are contained in FM 101-1, AR 600-400, and SR 600-400 series.

Section II. REPLACEMENTS

71. General

a. The personnel replacement system is designed to insure dependable and timely arrival of properly qualified replacements at units as required. Since the strength of a unit may be depleted rapidly in modern combat, replacements for losses must be readily available to maintain combat effectiveness. The replacement system must insure that replacements are trained and hardened for the particular combat area and that they are properly equipped and qualified to fill unit vacancies as they occur.

b. Each theater army commander is responsible for informing the Department of the Army of the needs of his command. These requests must be coordinated by the Department of the Army to determine the allotment of replacements to each theater or command in accordance with need, availability, and shipping facilities.

72. Theater Army Replacement System

The theater army replacement system is designed to support the continued effectiveness of theater army units by providing for their maintenance at authorized strengths, and by contributing to the

efficient use of available theater army manpower. The principal agencies of the theater army replacement system are the theater army replacement command and the field armies.

a. Ceiling. For each theater the Department of the Army establishes an authorized strength or theater army ceiling which consists of the authorized strength of all tables of organization units, the bulk authorization, and the authorized replacement stockage. The size of the replacement stockage authorized for a theater is determined by the magnitude and intensity of planned operations and the time lag between requisitions and delivery of replacements to the theater.

b. Requisitions. Theater army bulk requisitions are prepared and submitted by theater army headquarters periodically (usually monthly) to the Department of the Army, covering estimated requirements for the third month after the date of requisition.

c. Allocations. Allocations and priorities are established by the theater army commander within and between major commands to insure an equitable distribution of available replacements and to support operational plans.

d. Sources. The two basic sources of replacements for the theater are replacements from the zone of interior and replacements from sources within the theater which include recovered sick, injured, and wounded personnel, personnel rendered surplus within a theater, personnel inducted, enlisted, or appointed within the theater, personnel withdrawn from service units and activities and retrained for combat duties, and personnel returned

to duty from disciplinary installations and from captured and missing status.

e. Installations. Appropriate replacement installations are established within the combat and communications zones. They will normally include—

- (1) The theater army replacement command, as a major command responsible directly to the theater army commander. It includes all Army replacement units and installations within the theater except those assigned or attached to field armies.
- (2) Replacement groups normally assigned or attached to theater army replacement command or field army.
- (3) Replacement battalions normally assigned or attached to replacement groups.
- (4) Replacement companies assigned or attached to replacement battalions.
- (5) Replacement companies organic to infantry, armored, and airborne divisions.

For additional details on installations and units see FM 101-1 and T/O & E's of the 20 series.

f. Operations. Replacements are forwarded from replacement installations in the zone of interior and from installations within the theater through a system of appropriately located personnel replacement units. Details of the operations of the army replacement system within the theater are contained in FM 101-1.

73. Forwarding of Replacements

Headquarters receiving replacements for distribution to troop units make advance arrangements

for their reception and orderly distribution to avoid delay. Whenever possible, replacements are forwarded to a tactical unit only when it is physically capable of properly receiving them.

Section III. DISCIPLINE, LAW AND ORDER

74. General

Discipline, law and order are functions of command. All commanders and staff officers must realize the effect of their plans and activities on the attainment and maintenance of discipline, law and order within the command. The major objectives sought are—

a. Combat effectiveness of the command by preserving respect for authority, enforcing regulations, and keeping to a minimum conditions adverse to good discipline.

b. Minimum losses in manpower because of trials, punishment, and confinement.

75. Discipline

Discipline is the state of order and obedience among military personnel resulting from training. The ultimate aim of discipline is success in combat. Disciplinary training provides willing and cheerful response to orders and commands under the most adverse circumstances, and insures the observance of existing military regulations, local civil laws and customs, and the rules of proper conduct. Such response during training is prompted by the individual's belief in the fairness, justice, and competence of the commander. Cooperation between military units and local civil authorities is a paramount necessity (FM 101-1 and 101-5).

76. Stragglers

Stragglers are military personnel who have become separated from their organizations either by accident or by design. Stragglers are controlled in bivouac by interior guards; on the march, by organizational control; in combat areas, by use of straggler control posts operated by military police; and in rear areas, by military police patrols and check points. The prompt return of stragglers to military control, their processing, and expeditious return to their own unit are important activities in the maintenance of discipline and law and order (FM 101-1).

77. Military Justice

a. Military justice is the system for maintenance of good order and discipline in the Armed Forces. Military justice is administered in accordance with the Uniform Code of Military Justice and the Manual for Courts-Martial, United States. Included within the system are the procedures relating to trial and punishment by court-martial and the processes pertaining to nonjudicial punishment for minor offenses.

b. Ordinarily, the power to convene general courts-martial exists at division, brigade, and corresponding or higher command level, the power to convene special courts-martial at regimental, detached or separate battalion, and corresponding or higher command level, and the power to convene summary courts-martial at regimental, battalion, detached or separate company or other detachment, and higher command level. For detailed procedures on this subject, see the Manual for Courts-Martial, United States.

Section IV. PRISONERS OF WAR

78. General

a. Prisoners of war are in the power of the detaining power, but not of the individuals or military units who have captured them. The laws of land warfare covering their treatment, utilization, and control are contained in the provisions of the Geneva Convention of 1929, and the subsequent conventions of 1949 which the United States may ratify. Provisions of these conventions pertaining to prisoners of war apply with equal force in any zone or theater of operations and at any level of command. Under the provisions of the Geneva Convention prisoners of war are required to respect the authority of the capturing nation and to abide by the regulations established by that nation.

b. Prisoners of war must be treated humanely and protected against acts of violence, insults, and public curiosity. Reprisals against them are prohibited. Prisoners retain the right to have their persons and their honor respected. Details concerning treatment, control, and use of prisoners of war are contained in FM 27-10, TM 19-500, FM 101-1, and FM 110-10.

c. Prisoners of war are collected, processed, appropriately segregated, and evacuated as soon as possible. These four steps are treated in detail in FM 19-40 and FM 101-1.

79. Collection, Evacuation, and Interrogation

a. Capturing troops disarm prisoners of war at once and search them for concealed weapons. Prisoners are permitted to retain clothing, insignia, decorations, identification cards or tags, and all

objects of a personal use including helmets and gas masks, but they are not permitted to retain arms, horses, military equipment, and military papers. The detaining power must supply identification documents to prisoners of war who do not possess them. Money may not be taken from prisoners of war except on the order of an officer and upon issuance of a receipt therefor. Temporary possession may be taken of such personal effects as necessary, including pictures, papers, and maps, for which the prisoner receives a signed receipt.

b. Interrogation takes place throughout the evacuation system and takes precedence over rapid evacuation except in forward areas where prompt removal of prisoners usually is the paramount consideration. The interrogation of prisoners of war is treated in FM 19-40, 30-5, 30-15, and 30-16.

Section V. GRAVES REGISTRATION

80. Graves Registration and Effects

a. The need for and importance of an efficient graves registration service are twofold: the maintenance of adequate sanitation and the maintenance of morale of both the military and of the civilian population (FM 101-1).

b. The theater quartermaster graves registration service is responsible for the prompt evacuation and burial of deceased military personnel and civilians under military jurisdiction, the proper handling of their effects, and the prompt, accurate, and complete administrative recording and reporting of these services (FM 10-63).

Section VI. MORALE AND PERSONNEL SERVICES

81. Morale

a. Morale is the state of mind of an individual as indicated by his willingness to do his duty and to participate as a member of a team for the accomplishment of the team objective. Good morale is indicated by a positive drive on the part of the individual, and an eagerness and enthusiasm, almost an intuition, concerning the leader's desires. Poor morale is displayed by dissatisfaction, indifference, lethargy, and lack of discipline. Morale is pride in self while *esprit de corps* is pride in unit.

b. Morale is a result of both command and staff leadership. It is the subordinate's expression of obedience, confidence, respect, and loyal cooperation elicited by command influence and direction. It is affected by the method used in discharging every command responsibility. Good morale is attained and maintained by training, discipline, and mutual confidence and comradeship among all members of the command. With proper leadership, good morale will exist despite physical fatigue, hardship, privation, and self-sacrifice.

c. In addition to the morale factor of good leadership, administration within a command provides certain services which strengthen morale. These are termed "personnel services," and are discussed in paragraph 82.

d. The status of the morale of the command should be determined continually. Lacking such information, a commander is acting without considering a fundamental factor in the estimate of combat effectiveness. This information may be obtained from formal and informal reports of subordinate com-

manders, all general and special staff sections, from authorized troop attitude assessment studies, and by personal visits and contact by the commander.

e. The subject of morale, its development, indicators, and methods of control are covered in FM 101-1 and 22-10.

82. Personnel Services

Personnel services are means which assist a commander in attaining and maintaining good morale. Although the immediate objective of personnel service is to assist the commander in caring for the personal needs or welfare of his men as individuals, the ultimate objectives are conservation of manpower and the stimulation of the individual's sincere desire to contribute to the effectiveness of his unit.

a. *Rest, Leaves, and Rotation.* Appropriate rest areas, rest camps, leave areas, and recreation centers are provided in the combat and communications zones. Leave quotas are allocated in accordance with policies of the theater commander. Plans are made and implemented for intratheater rotation, and, in a prolonged war, for rotation to the zone of interior.

b. *Decorations and Awards.* Appropriate policies are established by the Department of the Army to provide recognition of individual and unit heroism and meritorious achievement. Properly applied, these policies contribute materially to the support of morale by stimulating confidence, determination, and loyalty in individuals and the unselfish cooperation of units essential to the development of unity of command and purpose. (AR 600-45, AR 220-315 and FM 101-1.)

c. *Miscellaneous.*

- (1) *Army—Air Force Postal Service.* Postal service for troops is a function of command and is operated as a personal and organizational utility within each echelon of command. Commanders of all echelons will maintain the postal service at the maximum efficiency consistent with the exigencies of the military situation.
- (2) *Pay and allowances.* The functions and installations of the Finance Corps are set forth in paragraph 56. Measures are taken to relieve personnel of financial worries and to ensure that the various services offered by the Finance Corps are made available to all who are authorized to use them.
- (3) *Religious activities.* The responsibilities and functions of chaplains are covered in paragraph 54. The provision of adequate opportunities and facilities for the religious life and morals of a command are the responsibility of the commander.
- (4) *Special services.* The responsibilities and functions of special services officers are covered in paragraph 64. The primary objective of special services is to increase the effectiveness of the Army through a planned program of sports, recreation, and library activities. The primary concern should be the mental and physical well-being of personnel (FM 101-1).
- (5) *Welfare services.* Welfare services in theaters of operations parallel those in the zone of interior and include emergency relief, insur-

ance, legal assistance and American Red Cross information and home service. Welfare and recreational services of the American Red Cross and other authorized civilian welfare agencies may be used by theater commanders to supplement their own activities.

83. Services Contributing to Morale

Certain services while not specifically classed as personnel services contribute to the morale and well-being of the command. The G1, within his responsibility to the commander for the preparation of plans for and the supervision of personnel services within the unit, utilizes the advice and assistance of the general and/or special staff sections concerned with the operation of these services. Among these services are—

a. Preventive Medicine and Personal Hygiene. Preventive medicine and personal hygiene contribute to morale and individual effectiveness and conserve manpower by the prevention of physical and mental disease. A soldier well trained in personal hygiene enjoys the good morale which is characteristic of the physically healthy individual (FM 8-10).

b. Bath and Laundry Services. The availability of bath and laundry services contributes to the maintenance of good health and morale of the troop units served. Quartermaster bath and laundry units are operated in locations where they can best serve the greatest number of troops.

c. Troop Information and Education. Troop information and education activities and services are designed to assist commanders in developing effective and well-motivated troops.

d. Public Information. Appropriate and timely unit and individual publicity is an important morale-maintaining factor. Within the limits set by security requirements, commanders should seek justifiable publicity for their subordinates, their units, and the Army (AR 360-20).

Section VII. PERSONNEL PROCEDURES

84. Management

Military personnel management is the process of planning, organizing, and controlling, as individuals, the use of all personnel in such a manner as to obtain the maximum efficient utilization of the available military manpower. Commanders must recognize the importance of individuals and the objectives of the Army Personnel System.

a. A constant effort must be made to provide the individual with skilled leadership at every level; to capitalize on his aptitudes, interests, and talents; to stimulate his initiative; and to impress him with the lessons of loyalty and patriotism.

b. Details on personnel management are covered in FM 101-1 and AR's and SR's of the 600 through 625 series. Joint policies are contained in FM 110-10.

85. Procedures

a. Personnel procedures are the specific methods and processes established by the Department of the Army for accomplishing personnel functions. They include the techniques of procurement, classification, assignment, promotion, transfer, demotion, transfer to Army Reserve, elimination, retirement, and discharge.

b. Details on personnel procedures are contained in FM 101-1 and AR's and SR's of the 600 through 625 series.

Section VIII. INTERIOR MANAGEMENT

86. Headquarters Organization and Operation

a. Headquarters organizations and operation must be such that operations may be adequately controlled and the staff afforded maximum facilities consistent with economy, mobility, and security requirements.

b. Headquarters of large units may be divided into three command posts: tactical, main, and rear. For details see FM 101-5. Considerations for locations are signal communications, routes of communication, cover, defensibility, protection from mass destruction weapons, facilities, and accommodations for personnel. Additional details on location and protection are covered in FM 100-5. The allocation of shelter and quartering is covered in paragraph 240.

c. Personnel for headquarters not provided for in the approved T/O&E's are authorized by the Department of the Army in bulk allotment, by grades. The theater army commander makes appropriate bulk suballotments to major army commands of the theater. Authorizations normally are made in the form of tables of distribution and orders from the major army commands of the theater authorizing formation of the unit.

Section IX. CIVILIAN PERSONNEL

87. General

In a theater of operations there is a continuous

requirement for both skilled and unskilled labor for the performance of a variety of tasks, not all of which are peculiar to the Army. The use of civilian personnel is an effective means of supplementing available military manpower. The procurement, utilization, and management of civilian employees are a command functions at all echelons within the theater of operations. *It is essential that commanders make the fullest possible use of all available sources of civilian labor.*

88. Sources of Civilian Employees

The sources of civilian employees available to United States forces operating in theaters of operations may include local civilians, refugees, enemy nationals, displaced persons, and United States civilians. Each of the available sources should be exploited to insure that military personnel are not used for tasks that can be satisfactory performed by available civilians.

89. Policy on Procurement and Utilization of Civilian Employees

a. Broad policies on procurement and utilization of civilians in theaters of operations will be transmitted to the theater commander by the executive agent designated by the Secretary of Defense. Based on these instructions and on international agreements, the theater commander will develop plans for the procurement and use of civilian personnel within the theater of operations for all three services.

b. Combat commanders and communications zone commanders may be required to make temporary arrangements for the utilization of civilians based on

broad policy directives. However, these arrangements should be supplanted by a central labor service as early as possible.

c. Certain principles applicable to the procurement and use of civilian employees derive from international law. FM 27-10 outlines the principles of procurement and utilization of enemy nationals. For further discussion on the utilization of civilian personnel as labor, see paragraph 232.

Section X. MISCELLANEOUS

90. Command Responsibility

a. Every commander is responsible for the prevention of accidents which result in injury to personnel of his command and in damage to equipment, materiel, or property under his jurisdiction. It is important to the administration and the effectiveness of his command that every commander establish a safety program commensurate with the operations and activities under his jurisdiction. Maximum utilization of resources is essential to efficient administration and can be accomplished only by keeping to a minimum the manpower and monetary losses resulting from accidents (AR's and SR's of the 385 series).

b. Rules and regulations affecting the marriage of military personnel to foreign or United States nationals, and similar matters, should be coordinated, and supervised by the G1 as a miscellaneous administrative service pertaining to personnel.

CHAPTER 6

INTELLIGENCE

91. General

a. Accurate, complete, and timely intelligence is as essential a factor in the conduct of administrative operations as it is in the conduct of tactical operations. In each case, the commander makes estimates of the situation and arrives at decisions after considering his mission, the means available for its accomplishment, and intelligence of the enemy, the area of operations, and the weather. In each case, the commander is responsible for initiating and coordinating the search for that information which, when evaluated and interpreted, gives him the intelligence he requires in a particular situation to accomplish an assigned mission. He is responsible for designating the essential elements of information (EEI) and preparing a collection plan (FM 30-5). The commander is also responsible for the dissemination of this intelligence to higher, lower, and adjacent units.

b. Intelligence principles and details concerning combat intelligence and counterintelligence are set forth in FM 100-5 and FM 30-5. The functions of the intelligence officer together with forms, examples, records, and reports used by intelligence personnel are contained in FM 101-5. Additional details on combat intelligence for larger units are contained in FM 30-6. Miscellaneous intelligence activities are

covered in FM's of the 30 series and AR's and SR's of the 380 series.

92. Administrative Support Units or Agencies

Administrative agencies and units supporting tactical units share equal responsibilities within their capabilities for the collection, processing, and use of intelligence in connection with overall security and defense, as well as being vitally concerned in intelligence of importance to internal security, such as lines of communications security and local security of administrative installations. Frequently, appropriate intelligence is required for tactical operations by administrative units against isolated or bypassed enemy forces; against air attack, waterborne attack, attack by mass destruction weapons, airborne attack, guerrilla action, or infiltration, or to combat hostile underground movements, espionage, sabotage, or subversion.

a. Intelligence Function. The intelligence function of administrative commanders is therefore similar in every way to that of the tactical commander, and it varies only in the degree of emphasis given different phases or types of intelligence activity, depending upon the mission, composition, capabilities, and situation of the administrative command. Counter-intelligence, in particular, receives considerable emphasis.

b. Intelligence Coordination. Intelligence sections of administrative commands within the communications zone will establish close liaison with each other and with appropriate combat or administrative unit intelligence sections within the combat zone. Intelligence continuity must be maintained to insure com-

plete understanding of the intelligence problems pertaining to a particular area and as the combat zone moves forward additional areas will be assigned to the communications zone for counterintelligence control.

93. Counterintelligence

a. General. Counterintelligence activities assume increased importance to administrative agencies or units in connection with safeguarding administrative installations, supplies, and materiel; protecting lines of communications; providing local defense; securing and controlling prisoners of war; and controlling the civil population.

b. Special Operations. In marshalling or concentrating forces for airborne, amphibious, deception, or other special operations, administrative commanders of communications zones or sections are generally charged with logistical support for the operation. Counterintelligence activity within marshalling, staging, or concentration areas of the communications zones is a major activity of the administrative commander in the area or areas concerned.

c. References. For details concerning counterintelligence activities see FM's 30-5 and 30-6, and AR's and SR's of the 380 series.

94. Technical Intelligence

a. General. Technical intelligence pertains to the principles of design and operation, nomenclature, physical characteristics, and performance of materiel used by enemy armed forces. In a broader sense, technical intelligence may also embrace the manufacture, storage, installation, operation, and maintenance of enemy materiel as well as the nature,

organization, and activities of the agencies and installations of enemy forces having functions analogous to those of the army technical services.

b. Responsibilities. Commanders of all types of units are responsible for obtaining technical intelligence information as well as for processing and disseminating technical intelligence. Each technical service is responsible for the vigorous prosecution of technical intelligence in the field of its primary interest. Actual intelligence is secured through troop organizations and agencies and by use of specially trained technical service intelligence detachments (TSID's) within each service. The intelligence officer at each echelon is responsible for the recovery, examination, and exploitation of materiel for intelligence purposes; his is assisted by scientific and technical intelligence officers and detachments, technical service intelligence detachments, and the technical services. After exploitation, the disposition of captured enemy materiel is the responsibility of G4.

c. Operations. Starting at division, captured materiel normally is handled and evacuated through technical service channels. Reports and evaluations prepared by technical intelligence personnel are transmitted through intelligence and technical service channels. In the exploitation of captured materiel for technical intelligence *of value to the command as a whole*, the intelligence officer coordinates all functions pertaining to technical intelligence as a part of his overall military intelligence duties.

d. References. Complete details on technical intelligence activities are contained in FM 30-16.

CHAPTER 7

OPERATIONS AND TRAINING

Section I. COORDINATION OF COMBAT AND ADMINISTRATIVE PLANS AND OPERATIONS

95. General

There are certain activities closely allied to combat operations which are administrative in nature or which are especially applicable for administrative units or agencies. These activities are coordination of combat and administrative plans, troop movements, training of individuals and units, troop planning, security and defense of administrative areas and installations, signal communications, and records and reports.

96. Coordination of Combat and Administrative Plans and Operations

To enhance the ability of administrative planners to provide adequate support to strategic and tactical plans and because of the time element involved in providing for adequate logistical support, strategic and tactical planners must provide administrative planners with long-range information upon which the latter can act. Strategic and tactical planners must provide administrative planners with the earliest possible information on operation plans and keep them advised on all alternate plans and changes in plans. Concurrent planning is essential. It is the

responsibility of each commander to ensure that this coordination exists.

Section II. TROOP MOVEMENTS

97. Troop Movements

Troop movements may be classified as tactical or administrative. Tactical troop movements are those made with primary emphasis on the movement of the troops in combat ready formation. Administrative movements are those conducted with primary emphasis on the most efficient use of available transportation. Principles involved in troop movements are contained in FM 100-5, 101-10, 25-10, and in Field Manuals of the 7 and 55 series.

98. Methods of Movements

Troop movements, whether tactical or administrative, are made by foot, motor, water, air, rail, or any combination of these methods. The determination of the particular type of movement to be employed depends upon many factors, including the availability, suitability, and capability of the various means of transportation.

99. Administrative Arrangements

a. All tactical and administrative movements involve administrative arrangements, which include—

(1) *All movements.*

(a) When loading: organizing troops into groups appropriate for transportation; packing, marking, and loading organizational equipment; assembling troops, marching to transportation, assigning individual places, and loading troops into transportation.

- (b) *En route*: providing mess, medical care, rest, and recreation.
- (c) *When unloading*: Providing for reassembly of units; unloading troops and equipment; clearing of unloading space; staging; and reuniting troops and equipment.
- (2) *Highway movements (foot or motor)*. Allotment of transportation; priorities of movement; selection, marking, and maintenance of routes; highway regulations and highway traffic control; signal communications; refueling; maintenance; staging areas; and medical evacuation.
- (3) *Rail movements*. Preparation of forms (entraining tables, train consist tables, individual train loading plan); determination of the number and type of trains; priority of shipment; and selection of loading and unloading areas, staging areas, and movement control stations.
- (4) *Air movements*. Assignment of aircraft for personnel and equipment; packaging of supplies and impedimenta; selection of staging areas and marshalling areas, transportation to airfields; and resupply.
- (5) *Water movements*. Determination of types and capacities of transport to be employed; amount and type of supplies to accompany troops; method of transport loading to be employed; staging of units; movements to ports; use of port facilities; and provision of units for port operations (near and far shore).

b. For organization of the system of transportation, circulation, and control of traffic, and principles involved in movement of supplies, see Chapter 11. For planning data pertaining to troop movements, see FM 101-10 and Field Manuals of the 55 series.

Section III. TRAINING

100. Training

Military training progresses by phases and is normally divided into periods of individual and unit training. Basic principles employed in planning and conducting military training are contained in FM 21-5.

a. Basic individual training is designed to train the enlisted man in basic military subjects and fundamentals of basic infantry combat. Advanced individual training includes elementary subjects peculiar to the arm or service for which the individual is being trained. Minimum standards are prescribed in army training programs.

b. Technical training of the individual is designed to develop skills involving the use of equipment and weapons and the performance of administrative operations. Schools, on-the-job training, and participation in tactical exercises and maneuvers are the usual means of attaining and maintaining satisfactory standards of technical proficiency.

c. Tactical training is designed to develop the unit teamwork necessary for success in battle. Schools, unit training programs, and participation in tactical exercises and maneuvers are the usual means of developing this teamwork and of maintaining satisfactory standards for the command.

d. Administrative and service units in the theater

of operations receive as much training as their duties will allow. As a minimum, it is necessary to maintain the basic technical and tactical standards described above. In preparing for special operations, it may be necessary to establish complete training centers and schools to convert administrative or service units from one type to another or to train individuals in new skills. In all cases, it is essential that the primary service mission of these units be kept in mind, and that sufficient time be allotted for the appropriate individual and unit technical training required by that mission.

e. If the requirement for combat arms replacements in the theater cannot be met by the replacement flow from the zone of interior, administrative commands may be designated to retrain selected service and administrative personnel as combat arms replacements. This can only be used as an emergency expedient since the capacity of service units to support the combat arms may be impaired by this procedure.

101. Troop Information and Education

(see par. 63)

Troop information and education activities are an integral part of leadership and training. Outstanding leaders have obtained success by training the soldiers' minds as well as their bodies.

a. Troop information is designed to inform military personnel what the military and national objectives are, and to create and maintain in them a feeling of individual responsibility for attainment of these objectives; to motivate personnel by increasing their understanding of proposals and events; and to

make the news of the world readily accessible to them. In wartime, troop information includes the background and news of the progress of the current military situation. At all times, troop information counteracts propaganda of real or prospective enemies, and explains the nature of friendly and enemy psychological warfare.

b. Troop education provides for academic educational opportunities through group study classes, attendance at civilian institutions and correspondence and self study courses. The soldier is provided an opportunity to add to his military effectiveness and individual competence through instruction and opportunity for study.

Section IV. TROOP PLANNING

102. General

Organization, as it pertains to operations, includes preparation of and changes in tables of organization and equipment; establishment and discontinuance of Table Distribution units; reorganization and conversion of units; assignment and attachment of units; activation, inactivation, and disbandment of units; maintenance of troop lists; and establishment of priorities for issuance of equipment and for assignment of personnel. (See FM 101-1 and FM 101-5.)

103. Estimate of Requirements

Troop planning includes an estimate of requirements for troops to accomplish a mission. Troop planning for a theater is coordinated with the troop ceiling authorized the theater by the Department of the Army. Troop planning in a subordinate command is coordinated with the troop ceiling authorized

by the theater. The total number of personnel authorized the command includes those personnel carried in units organized on tables of organization, both standard and special, and those carried in bulk overhead allotment.

104. Troop List

A commander must maintain current information on each unit of his command, to include the name of the commander, location of the unit, table of organization and equipment or table of distribution under which it is organized, its strength, status of equipment, training proficiency, and operational experience. With this information at hand, priorities, based on operational requirements and policies of the commander, are established for assignment of personnel for training or retraining and the issuance of equipment and ammunition.

105. Changes in Troop List

An organization designed to meet certain operational requirements often needs modification as operations progress or plans develop. It may become necessary to add new units and to relieve old ones, and other units may require additional personnel and equipment to perform special allotted tasks properly. Operational experience may indicate changes in prescribed tables of organization and equipment to meet the needs of the unit concerned. Recommendations for such changes in tables of organization and equipment are processed through command channels. In preparing such recommendations members of both the general and special staff are consulted. Pending approval of these recommendations by the Department of the Army, theater army commanders may

temporarily meet requirements in their respective theaters by authorizing such changes. If the recommended changes to T/O & E's do not meet world wide Army requirements, the Department of the Army may authorize a special list of equipment as required for the theater concerned.

106. Selection of Units

In troop planning, the number, type, and selection of units to obtain a properly balanced force are based upon the mission to be performed. In addition, such factors as supported strength, extent of the area, terrain, climate, language, customs and attitude of civilians, enemy capabilities, lines of communications, local resources, prevalence of disease, organization and mission of supported, higher, and adjacent units, and the availability of personnel and equipment must be considered. Service troop planning is a primary responsibility of each chief of service, coordinated by the G4 for sufficiency and by the G3 for availability and procurement within troop ceilings. The sources available to meet troop requirements include units assigned to the command, units or personnel made available by higher authority, provisional units, bulk authorization units, conversion of surplus units, and civilians.

Section V. SECURITY AND DEFENSE

107. General

Measures for security and defense of administrative areas, installations, and lines of communications are essential for uninterrupted logistical support of combat operations. This security and defense includes protection against hostile air, airborne,

ground, or waterborne attack; mass destruction weapons or warfare (atomic, biological or chemical warfare) guerrilla action, infiltration, sabotage, or subversion; and innovations by the enemy in their existing tactics, techniques, or materiel.

108. Command Responsibility

Army and communications zone commanders are responsible for the general security and defense of their respective areas. Normally, in the security and defense of administrative areas and installations, local commanders are charged only with local security and defense. Active air and naval defense are provided for the theater as a whole, and are responsibilities of the theater commander or major component commanders as directed. Combat troops may be used to protect administrative and service areas and installations if the need is critical. *Such use of combat troops is held to an absolute minimum.*

109. Security

Administrative units and agencies within their mission, type of organization to include equipment and weapons, capabilities, and the existing situation, will take appropriate security measures to provide protection against all types of security threats or combinations thereof. Details concerning security threats and security measures are contained in FM 100-5.

110. Defense

a. Defense consists of two parts: local defense of individual areas and installations, and general defense of the overall area assigned. *Each unit commander is responsible for the local defense of his own*

area and installation. Enemy attack may take the form of a conventional ground attack as a deep penetration of frontlines by land operations, or consist of a wide envelopment of frontlines by ground, airborne, or amphibious operations or a combination thereof, or consist of an air attack. It may also take the form of action by guerrilla forces, of infiltration, or of attack by mass destruction weapons. The enemy may employ innovations in existing tactics, techniques, or materiel.

b. When selecting sites for administrative installations and bivouac areas, the local commander, as well as the area commander, must consider the nature of the installations, terrain, and enemy capabilities. The locations selected must be of such size as to permit adequate defense by installation troops and should take maximum advantage of natural barriers, defilade, cover, concealment, and the proximity to friendly troops. In addition, consideration must be given to the need for dispersion of facilities within each installation and adequate space between installations, so as to minimize damage that might result from enemy use of mass destruction weapons. The need for dispersion must be balanced against the need for efficient performance of the administrative mission and the defensive requirements of the installation (see FM 100-31).

c. Organization for general defense may be established on a territorial basis. In the combat zone, army, corps, and division commanders are responsible for the defense of their respective areas. They may organize their areas into subareas and appoint subarea commanders. Troops for defense of areas in the combat zone are provided by the appropriate

commander from troops assigned. In the communications zone, the defense may be organized into area, district, or sector commands and appropriate commanders and alternate commanders appointed. The defense plans of individual units, sectors, and/or districts must be integrated into the overall defense plan and the overall plan with the plans of adjacent commanders, including Air Force and Navy, and when applicable, civilian defense organizations.

d. Specific areas of responsibility for defense are prescribed by the commander. Control is maintained by the use of existing command organization, and communications means, where possible. If necessary, special command, organization and communication means may be provided. Alternative means of communication should be provided, particularly for outlying installations. A warning system should be established for rapid dissemination of information to all units in an area, and a system should be provided for alerting personnel within an installation.

e. Rear area defense operations must be coordinated with rear area damage control activities in order to economize on personnel and to insure unity of command. (See FM 31-15, FM 100-5, and FM 101-5.)

111. Defense Troops

Each commander of an administrative area must plan to conduct the defense with only the troops available to him. Special provisions must be made to insure adequate training of these troops to carry out a defensive mission. This training should include

training and instructions on infantry weapons and tactics, practice alerts, and field exercises. Training should also include indoctrination in the inherent strengths and weaknesses in airborne and guerilla tactics to familiarize troops with the advantages and disadvantages of these types of operations. Suitable combat units, preferably highly mobile troops, may be assigned to the communications zone or army commanders by the theater army commander for general defense purposes or for the defense of the army maintenance area and lines of communications.

112. Defense Measures

a. Local Commanders. Defense measures taken by local commanders may include interior and exterior guard systems, the construction of defensive works, such as foxholes, road blocks, and antitank ditches; the improvement of natural obstacles with such artificial obstacles as minefields and barbed wire and the camouflage of important installations and areas. As dictated by the situation special construction may be undertaken for those portions of installations which are most important, and therefore should be protected against mass destruction weapons. Usually available to assist commanders in this work are: (1) Engineer troops trained to assist or supervise the laying or removal of booby traps and the more complex types of land mines, to supervise camouflage, and to advise on the construction of protective and defensive works; (2) Chemical personnel trained to supervise the laying or removal of toxic chemical land mines; and (3) Ordnance personnel trained to dispose of

unexploded bombs, shells, or missiles that fall near installations.

b. Defense Against Mass Destruction Weapons. Defense against mass destruction weapons is a responsibility of all commanders. In a division or higher organization, the staff chemical officer advises the commander and staff on CBR defense matters and also furnishes technical information to personnel of lower units. (See FM 100-31 for further details.)

c. Conducting Defense. The defense is conducted in accordance with principles outlined in field manuals of the 7 series, FM 21-40, 31-15, and 100-5.

d. Protection of Personnel and Supplies. Protective means include foxholes for individuals, emplacements for weapons, revetments and cuts for vehicles and other equipment, light cut-and-cover shelters for command posts and communication equipment, and collective protectors for defense against CBR attack. Planning should also anticipate the disposition and safeguarding of the civil population residing in the area. At installations where a native labor force or prisoners of war are employed to augment the manpower of the service troops, planning should anticipate the disposition and safeguarding of these personnel in the event of attack. In addition, each commander will study the terrain in his area in order to locate natural geographic features such as caves, steep hills, or cuts, and to determine the existence and condition of man-made structures such as local defense air raid shelters, mines, tunnels, and other underground installations which can be used to protect supplies and personnel from atomic weapon, heavy artillery, or mass bombing attack. Factors to

be considered in the selection of specific underground facilities for this use are—

- (1) More than one exit.
- (2) Means for providing air supply.
- (3) Means for controlling moisture.
- (4) Danger of being collapsed or sealed off.
- (5) Facilities for personnel and supplies.

Section VI. SIGNAL COMMUNICATIONS

113. General

Signal communication facilities and systems are established and employed in accordance with the general principles enumerated below.

a. Every commander is responsible for the establishment and maintenance of the signal communication system of his unit and for its efficient operation as part of the system of the next higher command. Responsibility for the establishment and maintenance of signal communications lies with the higher commander in cases of communication between superior and subordinate units, with the commander designated by the common superior in cases of communication between adjacent units, and with the supporting commander in cases of communication between supported and supporting units. Full use is made of existing military and commercial signal communication facilities. Each commander usually allots to the next subordinate commander groups of frequencies for radio operation and groups of permanent wire and cable circuits for telephone and telegraph communication. Conditions may require that detailed control over facilities be exercised by a higher commander.

b. Each commander exercises the function of circuit allocation. Circuits are used on a "common user" basis, that is, they are generally available to all in the headquarters in accordance with priorities established by the commander. When signal communication facilities are very limited, it may be necessary for more than one headquarters or service to use circuits on a "common user" basis, but generally circuits will be allocated for direct communications needs between two headquarters. When the enemy possesses the capability of employing mass destruction weapons, alternate command and control facilities must be provided.

c. The senior commander present normally establishes and administers policies governing the use of signal communication facilities by civil government and private enterprise and the provision of such facilities for use by Red Cross, press, military government, psychological warfare, and troop information and education activities.

d. Required signal communication support must be provided to support transportation operations. The construction and major rehabilitation of such circuits are responsibilities of the signal service. When circuits are allocated for the exclusive use of the transportation service, excluding railways, the signal service will install and maintain the circuits and the transportation service will operate them. When exclusive circuits are allocated to the transportation railway service, the railway service will maintain and operate them.

e. Additional details on signal communication are contained in FM 24-5, 24-16, 100-5, and 100-11.

114. Operation of Signal Communication

a. A communications center normally includes a message center, a cryptocenter, and transmitting and receiving facilities. A communications center may be established to serve a designated headquarters or element thereof, one or more service installations or troop units located in an area, or a combination thereof.

b. Operational factors permitting, the overall communications requirements of an area or command should be provided by a system of dispersed rather than centralized facilities. Dispersed facilities should have enough spare capacity and interconnections so that, in the event of destruction, traffic loads in any one part may be absorbed, on an emergency basis, in the remaining parts of the system. The advent of atomic weapons makes desirable the installation of wire or cable underground because of the greater vulnerability of overhead communication wire to atomic blast. When surface communication is acceptable, or in difficult terrain, the use of helicopters or fixed wing aircraft for laying wire or installing and applying radio relay stations greatly facilitates the establishment of these communications. Under conditions of atomic warfare increased supply requirements for wire due to greater dispersion between units must be recognized and considered in all plans. Provision must also be made to minimize damage of radio equipment by use of underground installations which should be located in dry subterranean facilities since moisture will permanently affect communications equipment.

CHAPTER 8

CIVIL AFFAIRS/MILITARY GOVERNMENT

115. General

Civil affairs/military government encompasses all powers exercised and responsibility assumed by the military commander in an occupied or liberated area with respect to lands, properties, and inhabitants thereof, whether such administration be in enemy, allied, or domestic territory. The type of operation is dependent upon the degree of control exercised by the responsible military commander.

a. Civil affairs is the condition established in friendly territory in time of war whereby the United States, pursuant to an agreement with the government of the area concerned, assumes some or all of the functions normally exercised by that government. The degree of control exercised by the military forces of the United States is limited to the jurisdiction granted by the civil affairs agreement (par. 55).

b. Military government is the supreme authority exercised by an armed occupying force and is exercised when said armed force has occupied such territory whether by force or agreement. The armed force substitutes its authority for that of the sovereign or previous government. The right of control passes to the occupying force and is limited only by international law, established customs of war, and directives from higher authority.

116. Civil Affairs

a. In the territory of an ally liberated from occupation by a common enemy, a civil affairs administration may be established under which military forces will govern the local population through local civil authorities until a national civil government can be reestablished.

b. Civil affairs control may be instituted without a proclamation. However, a proclamation by the theater commander is a desirable means of informing all concerned of conditions imposed on the civilian population by military forces. Full cooperation of civil authorities is sought.

117. Military Government

a. When military government is exercised, the theater commander has legislative, executive, and judicial authority subject to the limitations of the laws of land warfare and applicable international conventions. Military government usually is announced by the theater commander through a proclamation to the civilian population, informing them of the fact of occupation, the extent of territory affected, and their obligations, liabilities, duties, and rights. In a theater of operations, the theater commander may delegate military government authority, but not his responsibility, to the theater army commander.

b. The civil affairs/military government section is the staff agency concerned with military government and the relations between military forces, civil government, and resident civilian population. Below the Department of the Army, to include divisions and comparable commands, this section is on the

general staff level. The principal objective of civil affairs/military government is to insure that conditions existing among the civilian population of the area assist military operations to the maximum extent, and that they do not interfere with those operations.

c. See FM 27-5 and FM 101-5 for a more detailed discussion of military government. For details on joint policies, see FM 110-10.

d. Of the problems in the field of civil affairs/military government which confront commanders usually those of refugees and DP's and civilian supply are most urgent and will be of greatest initial concern.

118. Refugees and Displaced Persons

Basic policies and procedures governing the control, care and repatriation of refugees and displaced persons in a theater of operations are established by theater commanders in conformance with directives of the Joint Chiefs of Staff and the Geneva Conventions. Preparation of detailed plans is the responsibility of army and communications zone commanders based on policies announced by the theater army commander. Humanitarian considerations should be recognized when possible, but the care and movement of such individuals must not interfere with military operations. Displaced persons are collected, segregated by nationality, fed and sheltered, given medical attention, and transported to their native country or area in consonance with national policy. Medical authorities should be alert to the possibility of displaced persons being used by the enemy as carriers of diseases for biological warfare purposes. Screening of displaced persons is necessary to detect

espionage agents and escaping members of the hostile armed forces.

119. Supplies for Civilians

a. Civilian supply includes both civilian relief and economic aid. Civilian relief includes that direct civil relief assistance such as food, clothing, shelter, medical supplies, and other relief items furnished for the control of disease and relief of civilian distress. Economic aid includes capital goods, raw materials, railroad equipment, fertilizers, and technical assistance furnished to industrial facilities, public utilities, transportation facilities and agricultural production for the preservation, relief, rehabilitation or restoration of the civilian economy.

b. In both friendly and enemy countries, it is usually necessary to furnish limited quantities of relief supplies from military stocks for the prevention of civilian unrest or disease which will hinder military operations or occupation.

c. In estimating requirements for relief supplies, account must be taken of factors such as the following: local production; time of harvest; percentage of population living in cities; estimated degree of destruction and foraging by enemy; allowances necessary because of breakdown in transportation between production areas and cities; and allowances necessary because of a breakdown in rationing and food distribution systems. Procurement and stockage are accomplished by the technical services based on estimates prepared by the military government staff officer in conjunction with other general staff agencies, within provisions of the theater policy.

d. In estimating requirements for the repair of

damaged public utilities consideration must be given to items required which cannot be provided from normal military stocks but which must be procured from continental United States. Failure to plan or provide for these items will cause lengthy delays in local rehabilitation.

e. See paragraph 171 for further discussion of civil affairs/military government supplies.

CHAPTER 9

LOGISTICS—GENERAL

120. General

The strategy and tactics to be applied in theaters of war are influenced greatly by an analysis of the quality and quantity of logistical support that can be expected. Logistical support, or lack of it, has often influenced the methods of conduct of battles, campaigns, and even wars. In the light of new developments, wars of the future will in all probability be conducted along lines dictated by the ability of the national economy to support operations administratively. Logistics as affects the Army is that part of the military activity which deals with design and development, acquisition, movement, distribution, storage, maintenance, evacuation and disposition of materiel; quartering, movement and evacuation of personnel; acquisition or construction, maintenance, operation, and disposition of facilities; and acquisition or furnishing of services. It comprises both planning, including determination of requirements, and implementation. It envisages transporting the proper troops and troop units and the appropriate supplies to the proper place at the right time and in proper condition to accomplish the mission for which intended. Because of probable destruction of major ports by enemy attacks, one of the most difficult problems that will face the logistician in war will be the maintenance of adequate

supply and service through small ports and over beaches.

a. Requirements for logistical support forces in a particular theater are determined by the mission, size, composition, and equipment of the theater forces; the tonnage to be moved; and the peculiarities of the theater, including size, location, terrain, climate, lines of communications, and other similar considerations.

b. The following principles are considered in the discussion of logistical support in theaters of operations in the subsequent chapters:

- (1) Minimum handling of supplies.
- (2) Minimum intermediate supply installations.
- (3) Maximum dispersion of installations commensurate with requirements for logistical support and provisions for passive defense.
- (4) Maximum utilization of existing facilities, local supplies, civilian personnel, and prisoners of war.
- (5) Maximum economy of human and material resources.

121. Logistical Support of Combat Operations

Logistical support of combat operations can be furnished by application of principles and procedures outlined in the succeeding chapters. Certain types of operations such as pursuits, exploitations, or retrograde movements present extraordinary logistical problems. Fluid operations of this nature and the use of mass destruction weapons will present logistical problems requiring additional means or expedients to insure continued adequate support of combat operations. Among such means and expedients are—

a. Pooling motor transportation from the communications zone and unaffected troops in the combat zone, even to the extent of temporarily immobilizing troops whose mission does not require mobility at the time.

b. Using air transportation to the maximum.

c. Reducing the allocation of supply for other forces to insure an adequate supply for advancing troops.

d. Diverting appropriate units from less essential duties to utilize their capabilities in support of the main effort.

e. Positioning of supplies in sufficient amounts to allow the withdrawing forces to fall back on their supplies and expend them by issue.

f. Establishing movement control headquarters to regulate and control the movement of supplies and troop units across major obstacles.

g. Providing increased security of logistical installations and lines of communications.

h. Keeping supplies mobile to facilitate rapid movement.

i. Providing for prompt redistribution of uncontaminated supplies and equipment, particularly the vehicles, of units rendered ineffective by mass destruction weapons.

j. Utilizing indigenous resources to the maximum as limited by the Laws of Land Warfare.

122. Logistical Operations

Logistical operations include supply, evacuation and hospitalization, transportation, service, management, and miscellaneous considerations which are discussed in chapters 10 through 14.

a. Details concerning staff functions, estimates, planning, orders, records, and reports of the logistics officer are contained in FM 101-5. In commands which are primarily administrative or logistical, certain of these functions may be shared with or performed by other general staff sections.

b. Details of organization and technical and logistical data are contained in FM 101-10.

c. Details concerning joint logistics policy and guidance are contained in FM 110-10.

123. Logistical Support of Special Operations

Special operations are those operations in which the characteristics of the area of operation, nature of the operation, special conditions, or a combination of these factors require special or specially trained troops, techniques, tactics, materiel, or an emphasis upon certain considerations. Tactical aspects of these operations are discussed generally in FM 100-5 and in detail in other pertinent field manuals devoted to specific special type operations.

a. Generally, the principles discussed in the ensuing chapters on logistics are appropriate for adequate logistical support of these special type operations. The principles are flexible and adapt themselves to command modification to meet the requirements of special type operations.

b. Operations in mountains, jungles, deserts, or in snow and extreme cold; and airborne and amphibious operations are of such nature as to require considerable modification of normal procedures. In each of these operations restrictions on administrative support require detailed planning, special procurement considerations, and extensive modification of normal

distribution, supply, and maintenance procedures. The procurement of specialized equipment in sufficient quantity to support major operations of these specialized types may require procurement lead time of such length as to constitute major limitations in planning for such operations.

c. These special operations present additional unusual logistical demands requiring major modifications in normal procedures as discussed below—

- (1) Operations in jungles and in snow and extreme cold require specialized equipment (FM 72-20 and 31-72) and a modification of normal distribution, storage, and evacuation procedures due to extreme weather and humidity conditions and the restrictive nature of lines of communications (FM 72-20). Operations in mountains are also dependent for support on difficult supply lines and require the utilization of men and animals for transportation in distribution and evacuation (FM 70-10).
- (2) Desert operations present problems in water supply maintenance, and extended lines of communications requiring modification of normal supply procedures.
- (3) Logistical support of amphibious operations requires detailed long-range advance planning. Initially, commanders are responsible for their own logistical support. All administrative support units and installations initially are under the command of appropriate combat commanders. Amphibious operations require close coordination of Army, Navy, and Air Force forces

in the establishment and maintenance of logistical support of forces ashore (FM 60-30).

- (4) In airborne operations the command of all administrative units and installations employed in the objective area is the responsibility of the airborne force commander, but is normally delegated to the senior commander in the airhead. Airborne force commanders are responsible for logistical support which accompanies assault forces. Communications zone agencies located in the departure area provide aerial supply and air-landed maintenance and build-up supplies for the airborne force by air lines of communication. Distribution within the airhead is a function of the senior commander in the airhead. After surface link-up, normal supply procedures are re-established (FM 57-30).

CHAPTER 10

LOGISTICS—SUPPLY

Section I. RESPONSIBILITY FOR SUPPLY

124. General

For convenience in considering the contents of this manual, the following definitions are included:

a. Supply. Supply is the procurement, distribution, maintenance while in storage, and salvage of all items necessary for the equipment, maintenance, and operation of a military command. This includes determination of kind and quantity of supplies.

b. Procurement. Procurement is the process of obtaining personnel, services, supplies, and equipment.

c. Distribution. Distribution is the receipt, storage, transportation, and issue of supplies to points or places where required by the military establishment.

d. Salvage. Salvage is the saving or rescuing of condemned, discarded, or abandoned property and of materials contained therein for reuse, refabrication or scrapping.

125. Supply Economy

Supply economy is a function of command. Aggressive action must be taken by all commanders to control and conserve supplies from the time require-

ments are planned until final disposition is made. Maximum service life must be obtained from each item. Accumulation of excess supplies must be avoided. Maximum use must be made of salvage that can be repaired or otherwise utilized within each command. It must be understood that, although tables of organization and equipment and other tables governing issue of supplies constitute the authority for issue, actual issues are governed by availability and need, thus conserving supplies and enhancing the mobility of using units.

126. Theater Army Commander

The theater army commander is responsible for the supply of Army forces in the theater as well as Navy, Air Force, and Allied forces, and civilian agencies as directed by higher headquarters. Normally, he delegates operations to subordinate commanders, but retains responsibility for developing plans and issuing directives by which supply operations in the theater are guided. These directives and plans include provision for the—

a. Establishment of the troop basis for phasing the logistical support force into the theater, and allocating them to subordinate commands.

b. Allocation of transport capacity to combat troops and service troops.

c. Assignment of supply missions and allocation of supplies among subordinate commands.

d. Establishment of installations and the use of captured facilities.

e. Establishment of supply control and stock control systems for the command as a whole.

f. Command impetus to salvage operations.

g. Approval of issues in excess of allowances and, when necessary, securing Department of the Army approval for such issues.

h. Establishment of technical inspection and technical assistance service to insure adherence to established supply procedures.

127. Communications Zone Commander

a. The communications zone commander is responsible for supply operations based on the directives and policies of the theater army commander, and for the supply of all items, except those for which the Navy or Air Force has responsibility, to Army forces in the theater, and such Air Force, Navy, and Allied forces, and civilian organizations as may be directed.

b. Control of theater supply, as distinguished from operations, is the responsibility of the communications zone commander and must be centralized in his headquarters.

128. Section Commander

In a divided communications zone the section commander is responsible for all supply operations conducted by the troops under his command and renders logistical support to such forces as directed. He coordinates his activities and cooperates with other elements of the communications zone and with the supported troops in the combat zone. He is responsible for stock control of supplies within his area, subject to instructions from communications zone headquarters which operates a centralized stock control system for the theater.

129. Army Group Commander

The army group commander is responsible for all supply policies affecting the armies within his group. He establishes supply credits, levels of supply, required and available supply rates, priorities of issue, and allocation of service troops to subordinate commands. The army group commander has no operating supply organization, but is interested in the adequacy of supply arrangements. He is an initiating agency with respect to the requirements for future tactical needs.

130. Army Commander

The army commander is responsible for the supply of all items to army units and, by arrangements with the air force commander concerned, for the supply of common items to air force units located within his area. He is responsible for supply to civilians as directed by higher headquarters. He receives estimates and recommendations from all elements of his command and other operating units in the army area for which he has supply responsibility and procures supplies from the communications zone and from local sources. He allocates critical or regulated items of class I through class IV and announces the available supply rates for class V items to subordinate commands within the army. Communications zone agencies deliver supplies to army depots and, in some instances, to supply points.

131. Corps Commander

a. The corps commander, when the corps is part of an army, ordinarily is not in the chain of supply except with respect to corps troops. He controls

the expenditure of class V supplies by announcing an available supply rate to the elements of his command. When items of other classes are in short supply, he controls their allocation by priority of issue. Such allocations are common with respect to classes II and IV supplies when they have an immediate and direct influence on tactical operations. Since divisions are transferred from corps to corps, the army commander normally allocates to divisions items of class II supplies to fill shortages or replace losses. In a rapidly moving situation the corps commander must be prepared to assume added supply responsibilities for his corps by extending supply operations to the rear. This is accomplished by augmentation through direct attachments from army or by coordination with advance army supply agencies.

b. When the corps is operating independently, the commander must be prepared to assume full supply responsibility for his corps. When the corps is made responsible for administration, additional supervisory personnel and service units must be attached in sufficient time to permit them to assume their new functions and develop teamwork.

132. Division Commander

The division commander is responsible for the supply of all items to his subordinate units. He deals directly with army on all routine matters of supply. He controls the expenditure of class V by announcing an available supply rate. Items in addition to ammunition in critical short supply which are deemed to have tactical significance, may be subject to allocation by corps. The division

normally operates supply or distributing points for class I and class III supplies, and its technical service elements normally carry a small prescribed load of supplies of all classes except class V. When operating alone, or in the initial stages of an amphibious operation, the division establishes and operates its own supply points, including class V, utilizing additional technical service troops attached for that purpose. In airborne operations, airborne divisions and units of smaller size are responsible for their accompanying supplies. Their responsibility for replenishment supply is limited to determination of requirements and preparation of requisitions to cover division needs. Corps, army, or communications zone arranges for the loading and transport of these supplies.

133. Other Commanders

Commanders of separate army units, smaller than division, in the combat zone are responsible for the supply of their own elements and for making their needs known to the next higher supply echelon. Normally, they obtain supplies by sending transportation to army supply points pursuant to arrangements that have been made by the army commander for subordinate units of the army.

Section II. REQUIREMENTS

134. General

Requirements for supplies are the needs or demands for supplies for the equipment, maintenance, and operation of a force, by specific quantities, for specific periods of time or at a specified time, or to complete a specific project.

a. Requirements for a particular organization or installation may include the following:

- (1) *Initial supply requirements* to provide for the initial issue of supplies or to complete shortages in the initial issue.
- (2) *Replacement and consumption requirements* to keep the initial equipment up to authorized strength and to replenish supplies which may be consumed or expended by using units or destroyed by enemy action.
- (3) *Reserve requirements* to establish or replenish an approved reserve.
- (4) *Project requirements* to provide supplies not authorized by established allowances, but approved for a special operation or purpose to include supplies to meet civilian needs.

b. In the theater of operations, commanders must know their total authorizations for supplies and equipment and determine the quantities on hand as a basis for current requisitions and long-range planning. Reliable data, especially for the major items of equipment, must be maintained as a basis for determining the various requirements not only to complete the initial equipment and reserves of the items themselves, but also to aid in the establishment of spare parts and other maintenance needs.

c. To attain the maximum degree of accuracy in determining requirements and to insure availability of proper types and adequate quantities of supplies best suited to the climate, terrain, types of troops employed, and nature of the operations, the communications zone staff must be informed of strategic and tactical plans as far in advance as possible. Conversely, the army staff must be advised, as far in

advance as possible, of the kinds and quantities of supplies planned for procurement or available to meet the needs of projected operations. When special equipment, not normally authorized in applicable tables of organization and equipment, is required for an operation, requirements must be known or estimated sufficiently far in advance in order to insure procurement and availability for the operations.

d. In the initial stages of mobilization, requirements for supplies largely represent needs for initial issue. In later stages, practically all requirements represent needs for replacement and replenishment. Department of the Army requirements for these supplies are computed on the forecast of troop deployment and theater replacement factors and consumption rates. Theater army commanders must establish means of forecasting their own requirements at the earliest possible date since procurement on a large scale has a lead time of from 9 to 24 months.

135. Initial Supply Requirements

Initial supply requirements are those allowances for the command prescribed in tables of organization and equipment, tables of allowances, equipment modification lists, and similar authorizations. Periodic statements of these requirements must be prepared for the purpose of eliminating shortages in the initial supplies of the command and to compute replacement, consumption, and reserve requirements.

a. In an oversea command, computation of these initial supply requirements is dependent upon a knowledge of items such as—

- (1) The troop basis and the allowance authorizations under which the troops and installations are to be supplied.
- (2) Status of supplies in the hands of troop units.
- (3) Dates of arrival or activation of troop units.
- (4) The dates on which supplies are needed for installations of the command.

b. Computation of these requirements and the determination of shortages are technical service functions. Commanders and staffs must provide the services with basic data, such as troop basis, status of supplies in the hands of troop units, phased arrivals, operations plans, and the period of time for which computations are to be made.

136. Replacement and Consumption Requirements

Successful day-to-day operation of an organization demands that supplies be readily available for succeeding operations. When supplies are received daily, these needs can be met with a minimum operating level of supply. When supplies are received at greater intervals, it usually is necessary to carry safety levels of supply and to ensure their prompt replenishment. Determination of daily or periodic requirements for maintenance is a technical service function. Commanders and staffs are concerned with furnishing the technical services with information which will permit them to forecast their requirements in sufficient time to meet demands of contemplated operations. Commanders and staffs are responsible that necessary experience data are obtained from using units to improve the factors used in determining the requirements for sustaining the operations.

137. Reserve Requirements

Reserve requirements represent the quantities of items needed to meet the safety level of supply for the command as defined in paragraph 146 and to establish any additional reserves which may be prescribed for particular purposes such as contingency reserves which might provide complete sets of equipment for newly activated organizations. Computation of these requirements is a technical service function. Commanders are responsible for obtaining authorizations for reserves from the next higher command echelon, and for issuing directives and supplying guidance to the technical services for the accumulation and replenishment of reserves.

138. Project Requirements

Project requirements represent those supplies which are not included in normal allowances but which are necessary to complete a specific task. An approved project requirement is one which has been authorized by the Department of the Army for supply, including necessary procurement.

a. Project requirements normally are considered as referring only to class IV supplies and do not include initial equipment or normal maintenance for troops. Occasionally, they may provide for supplies pertaining to other classes, such as specially packed or special rations; fixed guns; fire control equipment; ammunition; or liquid and solid fuels.

b. Project requirements are classed as being—

- (1) *Operational project* requirements if they provide additional equipment or supplies for tactical operations.

- (2) *Development project* requirements if they pertain to the construction, reconstruction, development, or remodeling of military installations, utilities, or facilities required to support military forces or activities in theaters.
- (3) *Maintenance project* requirements if they provide for quantities of class IV supplies for normal day-to-day maintenance of installations, facilities, and utilities which are required to support oversea forces and military operations.

c. Project requirements may originate in a theater, or may be included as a part of the Department of the Army plan for a specific operation. Emphasis must be placed on the early submission of theater project requirements to the Department of the Army in order that the demands of all theaters may be consolidated for orderly and economical procurement and supply. The lead time, 9 to 24 months, in the procurement of large quantities of critical materials, or the manufacture of special items, may make it necessary for the Department of the Army to initiate and prepare project requirements based on logistical studies and future operations while other operations are in progress and, frequently, before a theater commander or theater army commander is designated. Project requirements so initiated may be revised later, based on theater recommendations.

d. Project requirements include bills of materials and, when necessary, provide a schedule for the shipment of the materials. Complete bills of materials may be prepared in the theaters, but fre-

quently are prepared by the Department of the Army technical service, based on a general statement of the task to be accomplished. The latter method has advantages, especially where construction is necessary, since technical specialists familiar with design, nomenclature, and sources of materials are usually more readily available in the zone of interior.

e. The theater army commander's responsibility with respect to project requirements consists primarily of—

- (1) Reviewing Department of the Army prepared project requirements to determine their suitability and to recommend necessary changes.
- (2) Determining the need for additional project requirements and, where applicable, obtaining Department of the Army assistance and approval.
- (3) Issuing necessary directives to subordinate commanders to accumulate the needed supplies and to take action to complete the project requirement.
- (4) Allocating tonnage made available to him by the theater commander for the movement of materials to the theater.

f. Examples of supply projects which must receive special consideration are those pertaining to—

- (1) Fixed signal installations.
- (2) Base installations, including depots, shops, assembly areas, port facilities, hospitals, rest areas, military confinement facilities, prisoner of war inclosures, army exchanges, and postal systems.

- (3) Rehabilitation or construction of transportation facilities.
- (4) Specialized equipment and increased levels of supply needed for special operations.

Section III. SOURCES OF SUPPLY

139. General

Supplies are obtained by a theater of operations either by requisition and shipment from sources outside the theater or by exploitation of resources within the theater or by a combination of both methods. Military sources outside the theater may be the zone of interior, other theaters, or allied countries. Resources within the theater include procurement, captured materiel, and reclamation of supplies through repair. Procurement from allied countries will be in accordance with instructions of the Department of Defense.

140. Supply from Zone of Interior

Supply from the zone of interior on a requisition basis is the ideal method of insuring that an oversea command receives those items and only those items which are required to provide balanced stocks. In the initial months of a campaign, order and shipping time of from 3 to 4 months does not permit shipments to be made in accordance with requisitions based on actual requirements.

a. During the first months of operation in a new theater, supply usually is made on an automatic basis from the zone of interior. Units going into theaters are accompanied by their initial equipment and supplies for replacement and maintenance for a period of time. The Department of the Army tech-

nical services ship additional replacement and maintenance supplies periodically, and automatically (without requisition), in accordance with prescribed directives and prearranged schedules. Project supplies similarly are shipped automatically. In addition, supplies to meet emergency needs may be called forward as required. As the oversea command progressively gains control over its supply functions, it furnishes to the Department of the Army available supply status information as a basis for modifying the automatic flow of items and securing a more balanced stock position. Such supply status information may vary from simple reports of losses and reports of local procurement to inventory data necessary for complete material status reports.

b. As soon as possible, normal requisitioning procedure is established. The date on which automatic supply is cut off is prescribed by the Department of the Army, based on recommendations of the theater commander, in order to insure all supply agencies taking concerted action. This is necessary to prevent a break in supply as well as duplication of shipments.

c. Army-wide shortages in certain items may make it necessary for the Department of the Army to exempt those items from requisitioning and automatic supply procedure at any time. All theaters may be required to submit status or expenditure reports showing overall requirements, quantities on hand, and due in, and shortages, or expenditures. Available supplies then are allocated by the Department of the Army and shipped automatically by the chiefs of technical services in accordance with prescribed priorities. Alternatively, the theater com-

mander may be informed of the allocation and authorized to call the items forward by requisitions which direct shipment to specific ports in his theater.

d. Requisitions for supplies from the zone of interior are prepared and submitted periodically in accordance with policies and directives of the Department of the Army. All requisitions for supplies (other than those items obtained through air force or navy channels) are consolidated and forwarded by the communications zone to the oversea supply agency at a designated port of embarkation in the zone of interior. Chiefs of oversea supply agencies are responsible for forwarding these requisitions to the responsible technical service and for notifying the requisitioning agency of shipment and expected date of arrival at destination. When a technical service within the zone of interior is unable to supply an item by the time requested, the oversea supply agency transmits a notice of delayed items or non-availability to the oversea requisitioning agency. This notice of delayed items includes information concerning the expected date of availability for the item involved. In the event that the requisitioned item is not available in the zone of interior, and if for any reason will not be procured, a notice of nonavailability is furnished the requisitioning agency, along with recommended available substitute items, if any.

141. Requisition and Procurement From Other Theaters

Requisition and procurement from other theaters are undertaken at Department of the Army direction as excesses in such theaters accumulate or as operational emphasis changes.

142. Procurement From Local Resources

Procurement from local resources within a theater of operations is utilized fully. By this means, time, transportation, and our national resources are conserved.

a. In procuring items from local resources, consideration is given to the arrangements made with allied governments and the needs of the local population. Local resources to be utilized include services such as transportation, utilities, and facilities, including installations and billets. The supplies most desirable for local procurement are those requiring the bulk of available shipping space, such as food, forage, fuel, gasoline, lubricants, ammunition and construction material.

b. Material resources may be exploited by purchase, requisition, contribution, or confiscation. Purchase is the obtaining of supplies and services by cash payment or obligation at a fixed price. Requisitions are demands made on the inhabitants which differ from purchases in that prices are fixed, usually by the buyer, and the owner has no option in the transaction. Contributions are the results of demands or levies or taxes for money. Confiscation is the authorized seizure of property of a hostile country for public use (FM 27-10).

c. Procedure for utilization of local resources in the theater of operations is prescribed by the theater commander in conformity with the local laws and customs, laws of land warfare, and regulations of higher authority. Unauthorized seizure of property is punishable as looting.

d. The G4 is responsible to the commander for planning, policies, and procedures for, and the super-

vision, coordination, and control of, all procurement in the theater. Central procurement agencies may be established to handle procurement operations in the theater and subordinate commands. G4 through Civil Affairs/Military Government effects arrangements with appropriate officials of local governments for procurement of needed supplies and services to the extent locally available. Actual purchases normally are made by contracting officers of the several services, although they may be made by the central procurement agencies.

e. Civil affairs/military government weighs the effects of local procurement on the economy of the country by determining civilian needs and assists all procurement agencies in utilizing authorized available local resources, uncovering hidden resources, and providing liaison with civilian agencies.

143. Captured Materiel

For discussion of captured materiel see paragraph 170.

144. Reclamation of Supplies Through Repair

Reclamation of supplies through repair is effected through restoration of unserviceable items to serviceable condition and their return to the supply system for reissue. To be an effective source of supply, the quantities of each unserviceable item on hand and the repair parts required to place them in a serviceable condition must be integrated closely into the stock control system. The projected availability of items from this source then can be integrated with procurement and requisition from other sources (par. 175).

Section IV. LEVELS OF SUPPLY

145. General

Levels of supply is a general supply term used for planning purposes and in the control of supply operations. It expresses quantities of materiel authorized or directed to be held in anticipation of issue demands. It is expressed in days of supply or, in certain cases, in specific units of quantity. Levels of supply which are authorized for the theater are prescribed in terms of number of days of supply by the Department of the Army after consideration of recommendations of the theater commander and instructions of the Joint Chiefs of Staff (JCS). These recommendations and instructions are based on Department of the Army replacement factors or consumption rates, or on temporary factors based on experience and anticipated future activities. In order to conserve supplies and to economize in the manpower required to transport, handle, and administer them, theater and installation levels should be set as low as practicable consistent with the factors set forth below. Fast transportation, through shipments, and efficient documentation further this end.

146. Definitions

a. Safety level of supply is that quantity (in addition to the operating level) of materiel required to permit continued operations in the event of minor interruptions of normal replenishment or unpredictable fluctuations in supply demand.

b. Operating level of supply is the quantity of materiel required to sustain operations in the interval between the arrival of successive shipments. This

quantity is based, among other considerations, on the established replenishment period.

c. Stockage objective is the maximum quantity of materiel required to be on hand in order to sustain *current operations*. It will consist of the sum of stocks represented by the operating level and the safety level.

d. To maintain oversea command stocks within the operating range between authorized safety levels and approved stockage objectives, it is necessary that requisitions be initiated in time to keep on order and/or in transit to the command, quantities of supply sufficient to cover the number of days representing the time interval between the requisition action by the oversea command and the receipt in the oversea command of the materiel shipped as a result thereof. This time interval is known as *order and shipping time* and is established by agreement between the oversea commander and the chief, oversea supply agency, at the designated port of embarkation serving the command.

e. The oversea command requisitioning objective is the maximum quantity of materiel authorized to be "on hand" and "on order" to sustain current operations. It consists of the sum of the stocks represented by the operating level, the safety level, and the order and shipping time. The requisitioning objective for each item stocked in the command is used, with other factors, as a basis for restoring stocks in the command to the extent of the stockage objective. Theoretically, the proper computation of requisitioning objectives and the phasing in of shipments permit maintenance of stocks in the command

above the safety level without exceeding the stockage objective.

147. Determination of Levels Within the Theater

a. The theater army commander prescribes the levels for the combat zone and communications zone within which the armies and communications zone are expected to operate. The Department of the Army consumption rates and replacement factors usually are not applicable here; consumption rates and replacement factors for supplies differ considerably between the combat zone and the communications zone for practically all items. Levels for the combat zone are expressed in days of supply, or in quantitative terms. The corresponding quantitative levels are computed, using the appropriate level, the strengths of personnel, equipment in the hands of troops, and the factors or rates which experience within the Army has shown to be applicable.

b. The communications zone commander, section commanders, and theater navy and air force commanders similarly may assign levels for sections or installations under their control.

c. The factors to be considered in establishing levels for individual supply installations are as follows:

- (1) Supply level prescribed by the theater army commander for the combat zone.
- (2) Location and mission of each supply installation.
- (3) Order and shipping time agreed upon between installations.
- (4) Character and relative importance of the combat missions of the tactical units being supported by each installation.

d. The theater army commander constantly makes use of all available information to analyze stockage objectives, requisitioning objectives, consumption rates, and replacement factors. He recommends to the Department of the Army necessary revisions to insure that current and anticipated demands are accurately reflected at all times.

148. Maintenance of Authorized Levels

a. Authorized theater levels are maintained primarily by requisitioning on designated sources of supply and other procurement actions. Requisitioning is normally accomplished on a schedule basis at periodic intervals. The computation of replacement and consumption requirements is based on authorized levels of supply and the following considerations:

- (1) Projected troop strength applicable to the period.
- (2) Changes in composition of the forces supported.
- (3) Seasonal requirements.
- (4) Anticipated operations which might create special requirements.
- (5) Revision of replacement factors and consumption rates as a result of added experience.

b. Maintenance of authorized levels of supply also require an accurate and detailed record of supplies on hand, due in, and due out. For record purposes, the supply levels prescribed by the Department of the Army for a theater of operations include all stocks held in the theater except those in the hands of using units and in class I, II, and IV, and III supply points. For class V supply see paragraph 157*c*.

These records are a part of the theater stock control system which is described in paragraphs 162 through 167.

c. Allowances of supplies other than those represented by tables of organization and equipment, tables of allowances, and approved equipment modification lists, unless they are of a trivial nature, usually will require Department of the Army approval. This approval is necessary because the increases may require additional procurement action with a lead time of 9 to 24 months.

149. Supply Control

Supply control is the process by which all data pertaining to an item of supply are assembled, and culminates in the balancing of all demands for the item against all assets of the item. This process results in definitive supply action in the form of procurement, allocation, and disposal. Supply control is a function performed for the commander by chiefs of the technical services. The basic elements of a supply control system are—

- a.* Supply policies of the command.
- b.* Stock control records.
- c.* Forecasts of requirements for and availability of supplies at stated periods in the future.
- d.* Studies of all factors affecting the past, present, and future supply status of individual items.

Section V. DISTRIBUTION AND STORAGE

150. Principles

a. Distribution is the term used to include the functions of receipt, storage, transportation, and final issue or disposition of supplies to the places required by the military establishment. This man-

ual is concerned primarily with the distribution function within the theater of operations. It is a function which can be performed properly only with a full knowledge of the plan of the commander, the availability of supplies, and the needs of the using units, and by the establishment of a balance among requirements, receipts, storage space, and transportation facilities. Distribution operations include—

- (1) Issuing directives or establishing policies and procedures for the movement of supplies through the supply system, including assignment of storage and issue responsibility.
- (2) Establishing missions for supply agencies.
- (3) Providing and supervising stock control procedures.
- (4) Providing and supervising procedures for the requisition, issue, loan, sale, transfer, return, or other disposal of supplies.

b. The basic principles of distribution include the following:

- (1) The distribution system must be flexible.
- (2) Sufficient supplies must be on hand to enable replacement of each day's expenditure prior to the commencement of the following day's operation.
- (3) Available supplies should be located to minimize delay in meeting approved demands.
- (4) The distribution system must make the most efficient use of available transportation and reduce to a minimum unnecessary shipment, transshipment, or rehandling of supplies.

(5) Each commander with an administrative function should have under his control in depots, only those supplies deemed necessary to insure his mission against interference because of variations in resupply operations.

c. The principle of flexibility indicates that the bulk of reserve supply should be distributed in width and depth.

d. The principle of having on hand sufficient supplies to enable replacement of each day's expenditure prior to the commencement of the following day's operations and of having available supplies located to minimize delay in meeting approved demands indicates the establishment of supply installations containing balanced stocks of fast-moving items near supported units.

e. The principle of efficient use of transportation and of minimizing unnecessary shipment, transshipment, or rehandling of supplies indicates the necessity for supply movement as far forward as possible by one means of transport, bypassing intermediate supply installations when practicable.

f. The principle that each commander have under his control only those supplies necessary to insure his mission against interference due to variations in resupply operations indicates that the greater the assurance of continuous resupply which the commander has, the lower the stock levels he will be required to maintain, and thus the greater his mobility will be.

151. Theater Distribution Procedures

Applying the principles in paragraph 150 to the

distribution system within the theater of operations accomplishes the following:

a. Orderly receipt at ports of debarkation, or directly from the zone of interior by overland transport, or by local procurement of the supplies destined for the theater. These supplies are moved promptly into reserve (base) depots in the vicinity of the port (transportation terminus) to facilitate port clearance, segregation, and registration in stock control records.

b. From the reserve depots supplies are forwarded as appropriate to advance depots in the army maintenance area (army depots); to distribution depots in the advance section, if established; or, if required by storage limitations and supply level considerations, into reserve depots in the base section or the intermediate section, if one has been established. Any of these depots in the communications zone may have one or more of the following missions:

- (1) *Key*—responsibility for the receipt, storage, and documentation of specified items or categories of items not appropriate for storage at multiple points, and issue to units and installations located within an extensive geographical area.
- (2) *Reserve*—responsibility for receipt, storage, documentation, and issue as appropriate of specified items or categories of items for a specified purpose; e. g., theater or strategic reserve or reserve for another depot.
- (3) *Distribution*—responsibility for receipt, storage, and documentation of specified items or categories of items, and issue to units and installations within a limited geographical area or to specified commands.

Depots are further classified as to their organization as branch and general depots: the former when the supplies of a single service are stocked; the latter when supplies of two or more services are stocked.

c. Within the communications zone, distribution of supplies to using units will be either through issue sections of designated depots or through supply points established to serve particular units or areas.

d. Within the combat zone, distribution of supplies to combat units will be either directly from army depots or from supply points established further forward for fast-moving items. Units in the army maintenance areas will normally be served by issue sections of designated depots.

e. There are two general methods of distributing supplies to using units, distinguished by the point at which supplies are delivered to them, as follows:

- (1) In *supply point distribution*, delivery is made to using units at the supply point (depot, railhead, truckhead, navigation head, pipehead, distributing point, or maintenance unit) and supplies are hauled to the unit bivouac, dump, or distributing point in transportation furnished by the using unit. Supply point distribution generally is used by armies and divisions in making supplies available to their subordinate units.
- (2) In *unit distribution*, delivery is made to using units at the depot, bivouac, dump, or distributing point of the units in transportation furnished by a higher echelon. Unit distribution normally is used by the communications zone in delivering supplies to

armies and by regiments in delivering supplies to companies.

f. In locating supply installations three factors must be analyzed in conjunction with the existing situation:

- (1) *Ability to accomplish the assigned mission* is overriding and must take into account location and mission of supported units and installations, transportation facilities to the front and rear, internal arrangements such as hardstand, buildings available, interior road net, and facilities for quartering operating troops nearby.
- (2) *Dispersion of facilities*, discussed in paragraph 112, must be considered in respect to the value of the facilities as targets for the enemy.
- (3) *Defensibility of the area*, discussed in paragraph 110, must be considered with respect to local defense of the installation and the overall defense of the area in which located.

152. Requisition

A requisition or request may be a complete, written, formal requisition on a specified form; a call against a credit; a status or expenditure report; an informal request in the form of a message; an oral request; an empty gasoline tank; or an estimate made by the supplying service without any request from the using troops. Each formal requisition includes articles issued by only one supply service, thereby eliminating the necessity for processing and extracting by several supply agencies. Requisitioning and distribution procedures within a

theater of operations vary to some degree between classes of supply due to difference in the physical characteristics of the classes themselves.

153. Class I Supply Procedures

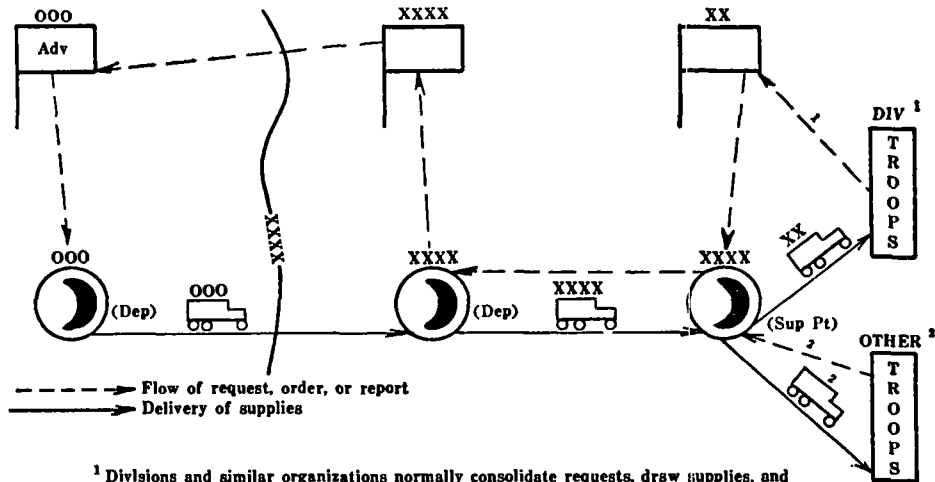
a. Class I supplies present a problem principally of bulk and tonnage with a refrigeration problem for some components. These supplies move through the communications zone class I (quartermaster) channels at a fairly uniform rate to army class I depots as requisitioned by the forward headquarters. Army normally establishes one or more class I supply points to serve each corps, with levels of levels of supply as prescribed by the army commander. Divisions and subordinate army and corps troops within the area draw from these supply points. Troops in the army maintenance area and those in the communications zone normally draw through the issue sections of class I depots or from established supply points serving particular areas or troop units.

b. The requisition for class I supplies is the daily ration request based on the current strength of units to be supplied.

c. Special items such as soap, suppressive medications, salt tablets, toilet paper, insecticides, American Red Cross supplies, and similar items may be issued through class I channels. Procedures for requisitioning and issuing these supplies are prescribed by the authorizing headquarters.

154. Classes II and IV Supply Procedures

a. Classes II and IV supply encompasses hundreds of thousands of items and presents a difficult



¹ Divisions and similar organizations normally consolidate requests, draw supplies, and transport them to a division distributing point from which issue is made to subordinate units. Alternatively divisions may arrange for subordinate units to draw direct from army supply points.

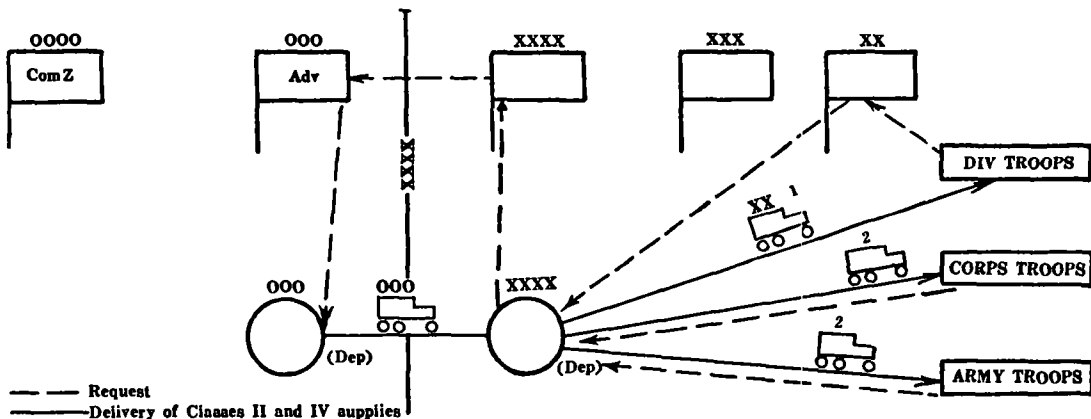
² Army, corps, and Air Force units submit requests and draw directly from army supply points. Frequently it is advantageous to group units for supply purposes.

Figure 19. Diagram for distribution of class I supplies.

problem in stock control to insure that unfilled demands do not exist at one point while unknown stocks accumulate at another. Since complete stocks cannot be maintained at all points of storage and there is no uniformity in the problem encountered among the various services as to maintaining balanced stocks, *slow-moving* items of these classes normally are stored only in reserve and/or key depots to permit centralized control and distribution forward on a *special order* basis. Reasonable stocks of fast-moving items are echeloned laterally and forward.

b. Classes II and IV items of supply move through the communications zone classes II and IV channels into army depots of their respective services as requisitioned by the forward headquarters. Army may maintain a limited stockage of fast moving supplies at forward supply points. Forward maintenance units of some services contain supply sections with similar stocks. Divisions and subordinate army and corps troops, within the area will draw from these supply points, if established, or from the issue section of army depots. Troops in the army maintenance area and those in the communications zone, normally draw their supplies through the issue sections of the respective classes II and IV depots.

c. No one form of requisition can be considered standard for all classes II and IV supply. Depending upon the item or items desired a formal requisition form, a status or expenditure report, an item for exchange, or an informal request may be appropriate. Whatever the form used, specific information as to number or amount and nomenclature must be included. Items of each service are presented on sep-



1 Divisions and similar organizations normally consolidate requests, draw supplies, and transport them to a division distributing point from which issue is made to subordinate units. Alternatively, divisions may arrange for subordinate units to draw direct from army supply points.

2 Unit transportation.

Figure 20. Diagram for distribution of classes II and IV supplies.

arate requisitions to preclude delay caused by extraction of information by several installations. Using units normally requisition supplies on an established periodic basis, but when emergencies justify, demands may be placed at any time. In unusual cases credits may be established for a supported unit by a higher headquarters in which instance the supported unit may draw on these credits directly from the designated depot or supply point. The supplying agency is responsible for issuing to the using unit instructions concerning requisition schedules and procedures. The criteria for such procedures must be simplicity and effectiveness.

155. Class III Supply Procedures

a. Class III supplies, primarily solid and liquid fuels and lubricants, usually comprise more than one-half of the tonnage shipped to a theater. The demand for solid fuel is limited primarily to communications zone agencies and installations. Although the total demand for all liquid fuels is comparatively constant, the demand for individual fuels fluctuates considerably, depending on the season and type of operations. Petroleum products are classified as bulk or packaged. Bulk petroleum products are those handled in containers with a capacity exceeding 55 gallons. Packaged products are those handled in containers with a 55 gallon or smaller capacity. Bulk petroleum products are transported from the continental United States or offshore sources to the theater in tankers operated by the Military Sea Transportation Service. The bulk cargoes are discharged into shore facilities from which they are transmitted by pipeline to a tank farm. From this base tank farm,

petroleum is moved as far forward as possible in bulk, i. e., pipelines, rail tank cars, barges or tank trucks to a forward tank farm where the product is decanted and issued to using units by the quartermaster corps. Intermediate quartermaster tank farms are located along the pipeline for the purpose of supplying local requirements and minimizing handling as a packaged product. The quartermaster corps is responsible for the receipt, storage, and issue of petroleum products and has operation or operational control responsibility for all petroleum facilities incidental to the accomplishment of this mission with the exception of pipelines, and railroad, and inland waterway equipment. The quartermaster corps also operates plants for reclaiming, cleaning, manufacturing, and fabricating 5 gallon and 55 gallon containers. The Corps of Engineers, in collaboration with, and as required by, the quartermaster corps in the accomplishment of the latter's supply responsibilities, constructs, maintains, and operates petroleum pipelines, and constructs and performs field and depot maintenance on bulk petroleum storage facilities which the quartermaster corps operates and maintains (organizational maintenance). Similarly, the transportation corps arranges for the movement of bulk and packaged petroleum products by ocean and air means, and provides military railroad, highway, and inland waterway operating services. Transportation corps truck companies engaged in handling bulk petroleum products will be attached to appropriate quartermaster units for operational control.

b. These supplies move through the communications zone class III (quartermaster) channels at a fairly uniform rate to the army class III depot as

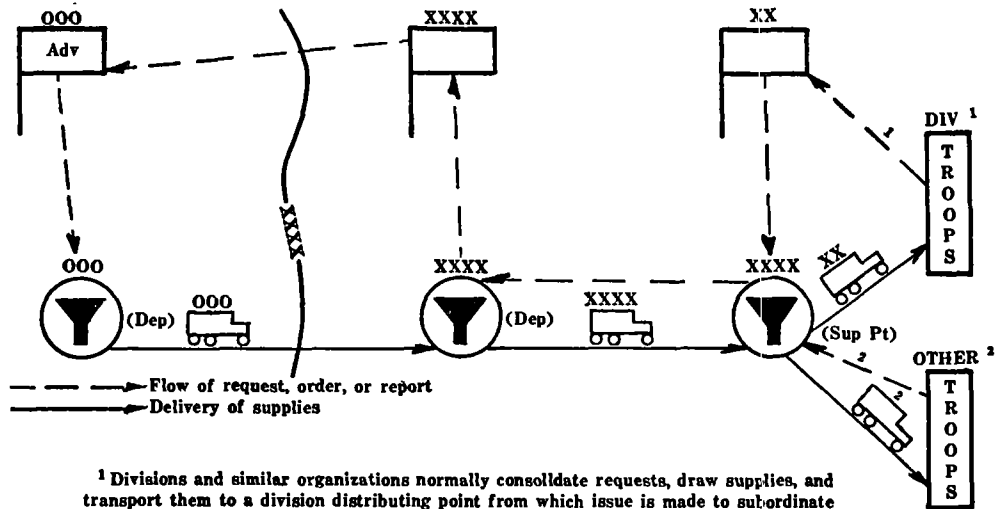
requisitioned by the forward headquarters. Army normally establishes one or more class III supply points to serve each corps, with levels of supply as prescribed by the army commander. Divisions and subordinate army and corps troops within the area draw from these supply points. Troops in the army maintenance area and those in the communications zone normally draw through the issue sections of class III depots or from established supply points serving particular areas or troop units. When canning facilities are available in forward areas, delivery will be made to them in bulk, by pipeline, tank cars, tank trucks, or barges.

c. The instrument for formally requisitioning class III supplies is the *daily status report* which indicates quantities on hand and estimated requirements for the next consumption period. Units smaller than division are not in a position to keep stock records and their daily reports are generally limited to an estimate of gasoline requirements. The presentation of an empty container or gasoline tank on the vehicle may constitute the only requisition of the using unit.

156. Class V Supply Procedures

a. The ammunition supply system is generally based on the using units having in their possession a specific amount (basic load) of ammunition which will be replenished as used. Class V supplies represent both a tonnage and a specific item problem. A requirement in distribution is to insure early segregation and identification of stocks.

b. Class V items of supply move through the communications zone class V (ordnance) channels into



¹ Divisions and similar organizations normally consolidate requests, draw supplies, and transport them to a division distributing point from which issue is made to subordinate units. Alternatively, divisions may arrange for subordinate units to draw direct from army supply points.

² Army, corps, and Air Force units submit requests and draw directly from army supply points. Frequently it is advantageous to group units for supply purposes.

Figure 21. Diagram for distribution of class III supplies.

army depots as requisitioned by the forward headquarters. Army establishes one or more class V supply points to serve each corps with sufficient stock to provide adequate support for 2 or 3 days for weapons supported. Divisions and subordinate army and corps troops within the area draw from these supply points. Troops in the army maintenance area and those in the communications zone normally draw from the issue sections of class V depots or from established supply points serving particular areas or troop units (FM 9-6).

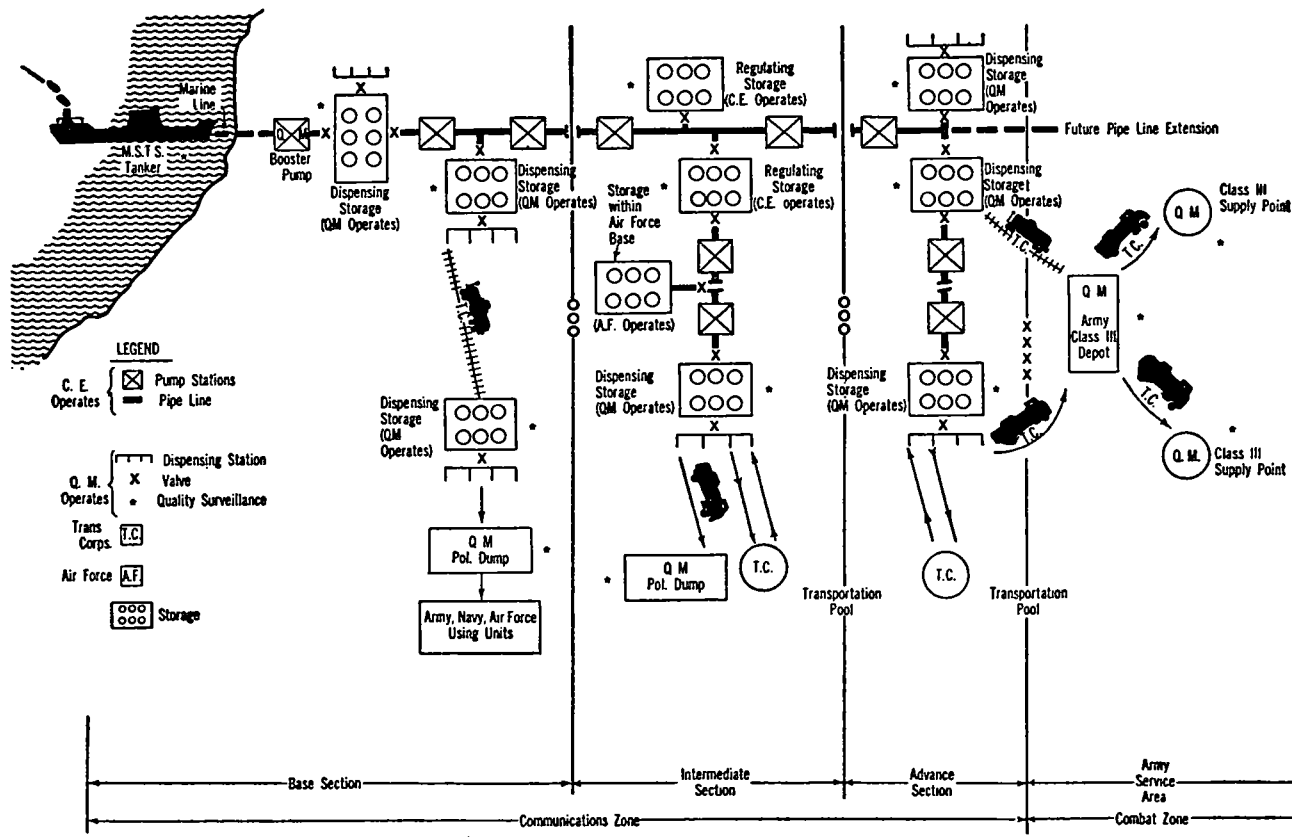
157. Class V Supply Definitions

The following terms are used in ammunition distribution procedures:

a. Procurement Rate. The procurement rate is the amount of ammunition in rounds per weapon per day that must be manufactured in the zone of interior or elsewhere to maintain an uninterrupted supply to all theaters and within the zone of interior. The procurement rate is determined by the Department of the Army, based on requirements of the various theaters, on requirements of the zone of interior, on requirements of allies, and on distribution needs.

b. Ammunition Day of Supply. The ammunition day of supply is the estimated quantity of ammunition required per day to sustain operations in an active theater. It is expressed in terms of rounds per weapon per day for ammunition items fired by weapons, and in terms of other units of measure for bulk allotment ammunition items. It is used by the Department of the Army, based on recommendations by theater commanders, in establishing theater ammunition stockage objectives and supply levels.

OVERSEA DISTRIBUTION OF BULK PETROLEUM



NOTE: I. When circumstances indicate the efficiency of the petroleum distribution system would be improved, appropriate Engineer troops are placed under the operational control of the appropriate Quartermaster unit for the operation and maintenance of the established petroleum pipeline system.

II. Transportation truck companies engaged in hauling bulk petroleum products are attached to appropriate Quartermaster units for operational control.

Figure 22. Diagram for distribution of bulk petroleum in oversea theaters.

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The basis is applied to weapons authorized to be in the hands of all troops in the theater, beginning with their arrival in the theater. The ammunition day of supply includes the percentages of ammunition by types for both ordnance and chemical ammunition items. When the term "ammunition day of supply" is used to express either quantities on hand or ammunition available to support tactical operations, it must be qualified in terms of each type of weapon or item. For example, "10 days' supply for the 81-mm mortar; 6 days' supply for the 105-mm howitzer; 15 days' supply for all other weapons and items," rather than the general statement that 15 days' supply is available. The day of supply may vary in each theater to conform to experience, type operation, or plan. In a new theater the Department of the Army ammunition day of supply as published in SB 38-26 will be used as a basis for initial stockage until such time as experience provides a firm basis for change. Theater commanders must make continuous studies of expenditures and recommend necessary changes, bearing in mind that increases in the day of supply may result in increases in production rates and may require additional manufacturing facilities. Normally, a time lag of 4 to 12 months occurs between recommendations and the resultant receipts in the theater. Decreases in the requirement must also be reported promptly to permit reduction in procurement rates and release of manpower and facilities to meet other requirements.

c. Theater Supply Level of Ammunition. The theater ammunition supply level is the amount of ammunition authorized by the Department of the Army to be on hand in the theater, expressed in days

of supply. It is the level that must be maintained to insure an uninterrupted flow of ammunition throughout the distribution system, to provide adequate reserves, to cover minor delays in shipments of replenishment stocks, and to absorb variations in consumption rates. This level, when expressed quantitatively by item, becomes the theater stockage objective and is so entered on stock records. It includes all stocks in depots and supply points of both communications zone and army, but does not include the basic loads of units.

d. Required Supply Rate. The required supply rate is the amount of ammunition expressed in terms of rounds per weapon per day for ammunition items fired by weapons, and in terms of other units of measure per day for bulk allotment items, estimated to be required to sustain operations of the designated force without restriction for a specified period. Tactical commanders determine this rate to state their requirements at specified intervals for ammunition to support planned tactical operations. It is submitted through command channels, consolidated at each echelon, and considered by each commander in establishing the available supply rate for each major subordinate echelon within his command. It is computed on and applied to tactical weapons only, which include all weapons in divisions and crew-served weapons in nondivisional tactical units.

e. Available Supply Rate. The available supply rate is the rate of consumption of ammunition that can be sustained with available supplies, announced by each commander and applicable within his command. For ammunition items fired from weapons, this rate is expressed in rounds per weapon per day.

For other items, such as mines, hand grenades, and demolition explosives, it is expressed in terms of unit of measure per individual, organization, or vehicle per day. It is used as a control within a unit on the amount of ammunition that may be expended by that unit. At army group and army level, the term also is used as a forecast of ammunition availability. The available supply rate is computed on and applied to tactical weapons only, that is, all the weapons in divisions and the crew-served weapons in nondivisional tactical units.

f. Basic Load. The basic load is that quantity of ammunition which is carried by individuals and on the vehicles of a unit. It is expressed in terms of rounds for ammunition items fired by weapons, and in other units of measure for bulk allotment items. It is a fixed amount of ammunition established by the Department of the Army concurrently with publication of tables of organization and equipment. The percentages by type of each kind of ammunition (i. e., HE, WP, APC, etc.) are left to the discretion of the unit commander, so far as availability will permit. The basic load is subject to variation by army commanders when the transportation provided in tables of organization and equipment is modified by reduction or augmentation tables or by operational projects. Special temporary adjustments, when necessary for waterborne, airborne, and air-transported units in specific combat situations, will be prescribed by the commander directing the operation.

158. Class V Supply Procedures

a. To the extent that class V supplies are available in quantities sufficient to permit unrestrained firing,

unit commanders secure quantities needed to refill basic loads by submitting to the designated ammunition supply point a transportation order stating that quantities listed thereon are required for replacement of ammunition expended from the basic load. Transportation orders are prepared by unit munitions officers or S4s and in divisional units, the request (transportation order) is authenticated by the division ammunition officer (DAO).

b. Ammunition supply points of army are refilled by shipments from the army depots, or when advantageous to save handling, directly from communications zone depots as directed by the army ordnance officer. Army depot class V stocks are replenished by requisition or by calls on credit to designated communications zone depots.

c. Ammunition items are controlled by a system of credits down to army and by available supply rates within the army. The determination of the basis for ammunition allocation is made through estimates of requirements by combat commanders and concurrent estimates of availability formulated by the communications zone commander at periodic intervals. Divisions (corps for corps troops) compute the quantities of ammunition expected to be required to meet anticipated tactical needs of the ensuing period in terms of a required supply rate. Corps evaluates the required supply rates submitted by its divisions and, after consolidating division and corps troop rates, submits a consolidated corps required supply rate to army. Army consolidates the estimates of corps, adds any factors not known to corps, such as troops in army reserve and planned changes in tactical emphasis, and states to army

group or theater army the required supply rate for the army. Concurrently, the ordnance officer in the communications zone computes and transmits to the theater army ordnance officer the expected availability of ammunition by type for the forthcoming period.

d. The theater army ordnance officer, under supervision of G4 and based on G3 recommendations, allocates the available ammunition among army groups. Army groups apply the required supply rate stated by the various armies against total quantities of ammunition available and state to each army a supply rate that will be made available during the period covered. Concurrently, army group issues instructions to the communications zone for the allocation of credits to each army to implement the stated available supply rate. Credits are issued by communications zone direct to each army in terms of specific quantities in specific depots. Items determined by army group to be available in adequate supply are eliminated from the statement of available supply rate and are left on an open requisition basis. Based upon information received from the army group and from credits and stocks on hand, the army commander states to each corps the supply rate for restricted items that can be supported within the scope of available supplies. In each case, the statement of available supply rate has the force of a directive and requires that commanders restrict the use of ammunition to the quantities stated per day. Corps commanders, in similar fashion, specify available supply rates for divisions of the corps and for corps troops having combat functions.

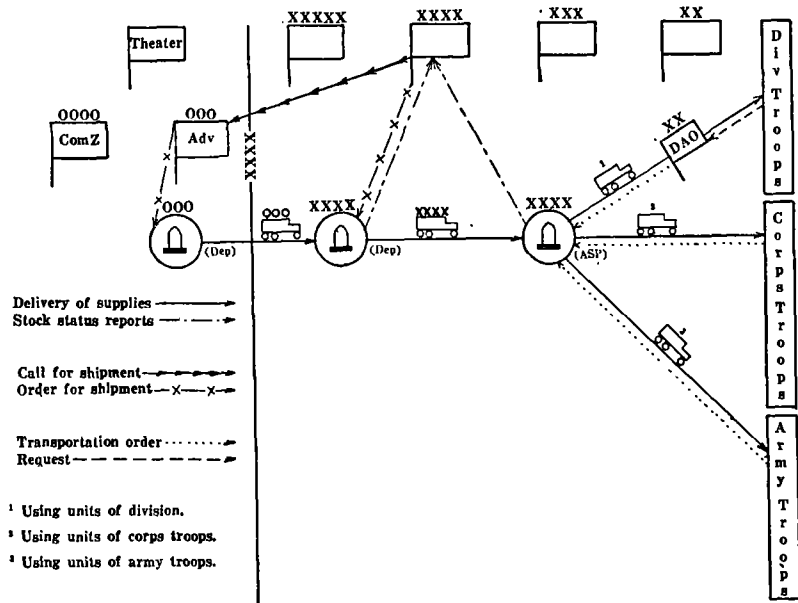


Figure 23. Diagram for distribution of class V supplies.

159. Air Force Supplies

a. The Air Force is responsible for procurement and distribution of certain common items of supply for all services. Within the theater of operations, such items are stored in depots of the air materiel command. Authorized issues to army forces are made by the air depot through the distribution system of the designated army technical service.

b. Appropriate commanders within the air materiel command estimate their surface transportation requirements and request these services or allocations from the Army commander controlling transportation in the area.

160. Regulated Items

Regulated items are those over which proper authority exercises close supervision of distribution to individual units or commands because the items are scarce, costly, or of a highly technical or hazardous nature.

a. The Department of the Army periodically publishes regulated items lists (SR 725-15 series) enumerating those items over which it desires to exercise control. Theater army commanders and field army commanders similarly may publish regulated items lists which include additional items over which they or the theater commander desire to extend control. Separate requisitions are required for regulated items.

b. It is the responsibility of the theater commander to establish policy for distribution of regulated items to major commands within the theater. These policies are implemented through the established distribution system. Subordinate commanders have like responsibilities within their commands.

161. Storage

Storage is a component of the supply distribution system. The principle of flexibility in distribution indicates that the bulk of reserve supplies should be held in rear or intermediate areas. Storage facilities are located to make maximum use of fixed transportation facilities.

a. Storage in theaters of operations is the responsibility of the various technical services and is included in the accomplishment of their overall supply mission. Supplies are stored in depots, supply points, at railheads, truckheads, pipeheads, navigation heads, and aerial ports. It is intended that relatively large quantities of supplies be stored only in depots. Supply points are established to make a limited supply of balanced stocks of fast-moving items more readily available to using units. Stocks located in the various transportation heads are placed in temporary storage pending further disposition.

b. Each time supplies are stored rehandling, local transportation, shelter, administration, documentation, and protection are required. Therefore, the number of storage operations should be kept to a minimum consistent with the distribution mission.

c. The type of storage facilities required is determined by the characteristics of the items to be stored and the manner in which they have been packaged. Among the types of storage to be provided are open storage, covered storage, refrigerated storage, and controlled humidity and temperature storage. Mobile storage may be provided when the transportation situation permits and when the operational situation requires. For details of storage

requirements see the pertinent publications of the technical services.

d. There is an increasing requirement for dispersion, duplication, and protection of storage facilities to provide passive defense against the effects of mass destruction weapons. Dispersion and duplication of storage facilities should be accomplished to the degree required by enemy capabilities and within the limits permitted by the mission of the supply agency. Protective measures include use of underground storage, protective construction, natural cover and concealment, and extensive use of camouflage and deceptive measures. The construction of storage facilities is expensive in the use of manpower and materials; therefore, existing facilities and open storage should be utilized where possible (FM 100-31).

e. Storage procedures include a system of documentation which integrates storage operations into the theater stock control system. Stocks are properly documented on receipt and stored in a manner that allows for rotation of supplies to prevent deterioration while in storage. Stock transactions and quantities on hand are recorded in a stock record system; storage location of stocks is recorded in a location system which indicates for each stock item its physical location within the storage facility. Stock control procedures are discussed in paragraphs 162 through 167.

Section VI. STOCK CONTROL

162. General

All command and operating personnel must realize the importance of stock control procedures and

supply economy. Efficient operations in a system designed for close control of almost a million different items and involving millions of tons of supplies are dependent on a thorough understanding of the problems connected with such a system. For detailed discussion of stock control see TM 38-403, AR 711-5, SR 711-15-5, and Special Regulations of the 711-45 series.

163. Stock Control Procedures

Stock control is that process by which through a system of records and reports, pertinent data are maintained on the quantity, location, and condition of supplies due in, on hand, and due out. The purpose of stock control is to determine the quantities of supplies available for issue, to maintain exact records of the locations of those items, and to record past issues. The objective of stock control is the management of supply operations so that distribution can be effected with a minimum stockage in the distribution system. Accurate stock control is essential to effective supply control.

a. Stock control develops and establishes those procedures by which—

- (1) Each using unit or depot is insured an adequate but not excessive quantity of supplies to meet anticipated needs.
- (2) Reserves are set up to meet emergencies.
- (3) Requisitions are filled speedily with a minimum number of warehouse refusals or back orders.
- (4) Excesses are uncovered quickly and returned to distribution channels.
- (5) Shortages in stock levels are discovered

immediately and eliminated before the using units are affected.

- (6) Surplus, obsolete, unstable, or unrepairable items are located and disposed of so they cannot clog the distribution system.

b. The theater army commander is responsible for establishing a stock control system to reflect the stock position of each item for which he is responsible within the theater. Each chief of technical service, under supervision of the communications zone G4, operates the system as it pertains to the supplies of his service. They integrate data on supplies held by Air Force or Army troops with data pertaining to supplies under communications zone control. Supplies in supply points (except class V) or in hands of using units (except in excess of basic load, class V) are not included in stock control records of the theater but are controlled within each supply point. At each level of command, stock control procedures are based upon those of the next higher command in the logistical system.

c. Stock control functions are—

- (1) Determination of supply levels for each supply installation.
- (2) Computation of stock levels by applying replacement factors, consumption rates, and experience to the authorized supply level.
- (3) Maintenance of stock levels by adequate and timely replenishment.
- (4) Review and revision of supply levels, replacement factors, stock levels, requisitioning objectives, and reorder points in

accordance with accumulated experience and anticipated requirements.

(5) Preparation of periodic reports of stock status.

(6) Recommendations to chief of technical service, when necessary, for the designation of certain items as regulated items.

a. Stock levels differ from supply levels in that stock levels are stated quantitatively in terms of units of measure such as *each, quart, pound, 2-ounce can*, etc., supply levels are expressed in *days of supply* for a given force. Stock levels are the objectives which replenishment action strives to maintain. Stockage objectives are never exceeded, and diligent effort must be made to keep the stock on hand above the safety level of supply by the timely placing of requisitions and aggressive followup action on previous requisitions. If stock levels fall to or below the safety level, command discretion must be used to insure that using units continue receiving their essential requirements. Those items in short supply may be rationed or regulated.

e. Efficiency of stock control operations is dependent upon review of theater army central stock control records, audit of installation records, accurate inventories, and inspection and instruction throughout all commands. Speed and accuracy of these operations must be stressed at all levels. Inaccurate records or those received too late to reflect current status of stock levels greatly hinder the efficiency and may undermine the very mission of the stock control system.

f. Whenever stock levels appear to be either inadequate or excessive, the installation commander

informs the authority which prescribed the supply level of all pertinent facts and recommends a revision of the stockage objective.

g. The provision of adequate means of communication, especially electronic communication (teletype or facsimile), and business machines, simplifies operations and permits the timely consolidation of stock control data.

h. Technical inspection and technical assistance personnel are necessary to the orderly establishment of an effective stock control system. They insure the correct interpretation of procedures, insure uniformity, and obtain and disseminate information by which procedures may be improved.

164. Physical Inventories

Physical inventories of depots and installations are made to verify or correct information on stock record cards.

a. Inventory includes every item in the depot. Unserviceable items are disposed of through repair or salvage channels. A complete inventory is taken either at a specific time, or on a continuous cycle inventory basis as prescribed by the technical service and must be so scheduled as to insure that every item is counted physically within the prescribed period.

b. Special inventories are taken whenever it is necessary to verify or adjust the stock record account of a particular item, or there is a warehouse refusal of a particular item (when a warehouse within a depot cannot supply the item) and the stock record card indicates quantities on hand available for issue.

165. Documentation

Documentation consists of those procedures for the preparation and maintenance of records by which supplies are identified as to quantity, location, condition, and disposition during the entire time they are in the supply system. Proper procedures of marking, packing, inventorying, and stock control assist documentation and give accurate information of materiel due in, on hand, due out, or required, as well as providing other data, such as physical location and condition of quantities of items and their routing, if in transit. Requisitions, together with reports of receipt or nonavailability are essential steps in documentation.

a. The purpose of documentation is to provide supply agencies with supply and shipping information, and includes all records and reports required by the consignor, carrier, and consignee to identify and effect the transportation of an individual shipment. Documentation can best be accomplished by a simplified system in which one document will provide complete information for all agencies concerned.

b. The port of embarkation is responsible that packages are forwarded with proper manifesting and stowage plans as well as adequate information as to content and destination. In the communications zone, each shipping agency is responsible that every shipment is properly identified. Each storage installation is responsible for knowing the items on hand and where they are located in the depot. Preparation of documents initiating movement is normally the responsibility of the shipper. Failure to prepare and process documents delays and often

makes impossible the movement of shipments in the manner desired by the shipper.

c. Documentation should provide—

- (1) Sufficient information to transportation agencies for control and identification of shipments at movement transfer points.
- (2) Detailed supply information to designated technical service agencies.
- (3) Advice to the consignee that the shipment is en route.
- (4) A basis of payment to nonmilitary carriers.

d. When an installation ships material by rail, truck, air, or waterway, it is essential that information as to destination and contents of the load be provided for each shipment in addition to the markings on the separate packages. These written instructions are a vital means by which movement control personnel insure that supplies reach the agencies to which dispatched.

166. Marking, Packaging, and Packing

Marking of supplies and equipment normally consists of the address, color markings, and identification of contents. Packing and packaging of supplies for movement to, from, or within a theater are in accordance with current specifications, amplified by the technical service concerned. Facilities for loading and unloading and the necessity for conservation of shipping space determine the methods of packaging. When suitable material handling equipment is available, consideration is given to the use of pallets. Packaging and packing must insure adequate protection against rough handling, salt water, and the elements en route and in storage.

Supplies destined to be airdropped are loaded into standard air supply dropping equipment (AR 740-15, TM 38-230, and SR 746-30-5).

167. Shipping Papers

Bills of lading, waybills, or manifests are prepared by the shipper or appropriate transportation officer to furnish the consignee with the amount and a general description of the cargo, its routing and date of shipment, and the pertinent identification of the conveyance in which the supplies are loaded. Any of these forms as designated may serve as a basis for payment of the carrier charges to civilian agencies (TM 38-705).

Section VII. MISCELLANEOUS—SUPPLY

168. Adjutant General Supplies

Adjutant general supplies consist of blank forms and publications. The adjutant general is responsible for the supervision of all matters pertaining to printing (except map reproduction) including policy and procedure for control, production, and distribution of military publications. Official publications are requisitioned through adjutant general channels. Technical publications necessary for the installation, operation, and maintenance of equipment are normally packed and shipped with each item of equipment.

169. Animals

Procurement, requisition, and distribution of animals are accomplished through remount depots which are quartermaster installations for receipt, care, training and conditioning, and issue of animals. Animal depots receive and distribute rehabilitated

animals returned to duty from veterinary evacuation hospitals. Animal depots will normally be located in the army service area or the communications zone since animals, when used, will be employed on specialized operations in isolated localities.

170. Captured Materiel

The term "captured materiel" applies to all types of supplies used by enemy armed forces, including weapons, instruments, vehicles, clothing, and ammunition. Captured materiel is a valuable source of logistical support and of far reaching value as a source of intelligence. Five major objectives are sought in the proper handling and exploitation of captured materiel (FM 30-16).

a. Prompt development of effective counterweapons and countertactics.

b. Prompt exploitation of new ideas for our own benefit.

c. Early deductions as to the state of foreign resources for war.

d. Utilization as a supplementary source of supply.

e. Derivation of information of value for any intelligence purpose.

171. Civil Affairs/Military Government Supply

Civil affairs/military government supplies consist principally of commodities such as food, coal, petroleum products, medical supplies, clothing, and any raw materials which can be utilized in local production. Supplies and services necessary to establish or restore information services in the area are provided (newsprint, printing facilities, radio broadcast and reception, motion pictures, etc.). Estimating requirements, recommending allocations and plan-

ning for distribution of supplies to civilians are responsibilities of the G5 of the command. Procurement, requisition, transportation, and distribution operations are responsibilities of the appropriate technical services. Normally, civil affairs/military government items are handled as regulated items without the necessity of being listed by the chiefs of the supply services, or included in the theater regulated items list. In preparing overall supply plans, supplies for civilians are considered in making allocations of shipping and storage space. Civil affairs/military government supplies when distributed through established military supply channels will retain their identity through documentation and special markings.

172. Petroleum Products in Bulk

a. Theater commanders will establish an area petroleum office as a staff agency at theater level to compile requirements and to coordinate all matters pertaining to petroleum, petroleum products, and containers therefor, for all agencies within the scope of his logistical responsibility. The area petroleum officer will serve as liaison officer for the Armed Services Petroleum Purchasing Agency (ASPPA) and will conform to the administrative and technical procedures prescribed by ASPPA. The communications zone commander may be assigned responsibility through the theater army commander for establishment of subarea petroleum offices for the purpose of coordinating all aspects of petroleum service within the theater.

b. When the threat of atomic or conventional bombing exists, alternate petroleum storage areas

must be provided, each containing a complete line of petroleum products. Each storage area should have access to at least two ports or beach areas to insure continued use of the petroleum storage facility in the event a port is rendered inoperative.

173. Psychological Warfare Supplies

Supplies for psychological warfare operations consist of printing and related reproduction equipment, mobile radio broadcasting and broadcast monitoring equipment, and loudspeakers for vehicles, tanks, and aircraft, and special artillery ammunition for distribution of leaflets behind enemy lines. Estimating requirements, recommending allocations, and planning for distribution of supplies are responsibilities of the psychological warfare officer of the command. Procurement, transportation, and distribution operations are responsibilities of the appropriate technical services.

174. Religious Supplies and Equipment

Supplies and equipment are available to chaplains in three categories. Standard supplies and equipment (altar brass, portable altar sets, communion sets, wine, candles, etc.) are issued through normal quartermaster channels. Nonstandard supplies are procured from appropriated funds (wafers, prayer books, rosaries, etc.) and donated items of supply (tracts, medals, Seder supplies, etc.) are called forward by the port of embarkation chaplains and shipped through normal supply channels to oversea commands.

175. Salvage

Salvage within the theater consists of recovered materiel to be used for the original purpose either

with or without repair and materiel which can be converted to a substitute use or which has value as scrap. Salvage materiel, especially arms and ammunition, which falls into the hands of civilians may gravely endanger rear area and lines of communication security. The prompt collection of equipment which has been abandoned on the battlefield and in bivouac areas and the utilization of all materials are important measures in the conservation of military resources and are the responsibility of all commands and personnel. Salvage operations make available substantial quantities of arms, equipment, and supplies for reissue; conserve labor and materials; and afford relief to shipping, rail, and highway transportation.

a. Salvage services within the theater of operations are performed by units engaged wholly or in part in the collection, evacuation, classification, reclamation, and disposition of waste materials, abandoned property, and unserviceable supplies. Salvage installations comprise collecting points, clothing and bath units, laundries, and other reclamation plants and shops.

b. Commanders designate normal service units supporting the using units to establish collecting points for appropriate types of materiel in favorable locations on road routes to the rear. Empty vehicles moving to the rear are utilized to transport recovered materiel to such collecting points. In the case of heavier equipment, and particularly in rapidly moving situations, technical service units of the army must assist subordinate units in the collection and evacuation of salvage materiel. Items pertaining to other technical services, collected by such units in

the course of their operations, are turned over to the nearest collecting point of the appropriate service. Arms and equipment of the sick and wounded are collected at medical establishments and are returned to supply channels promptly.

c. Technical service personnel inspect and sort salvage property at collecting points. Serviceable items are returned to supply points for redistribution. Repairable items are evacuated to the appropriate technical service shop for repair and returned to stock. Major items and major components not repairable to their original form are inspected, condemned, and disassembled for recovery of serviceable and repairable parts and assemblies. Items and assemblies not repairable within the resources of the command, but repairable in depot shops, are evacuated to designated reclamation establishments in the communications zone. Captured enemy equipment is handled in the same fashion, except that samples of new equipment are turned over immediately to technical intelligence (FM 30-16). Materiel which has been classified as scrap and any other items which have no value except for their basic materiel content are turned over to the activity designated by the theater commander as responsible for the disposition of surplus property.

176. Special Services and Exchange Supplies

a. Special services supplies consist of those items used for the entertainment and recreation of personnel, such as athletic equipment, books, magazines, musical instruments, theatrical equipment and accessories, hobby shop tools and materials, photographic supplies and equipment, and motion picture facilities. Normally, each unit takes overseas an initial supply

of special services equipment. Resupply is effected by requisitioning on the special services organizations that exist in the theater. In overall supply planning, requirements for special services supplies are considered in allocation of shipping space and storage facilities.

b. Army and Air Force Exchange Service supplies consist of items classed as seminecessary which are provided for resale to troops and other authorized individuals. Supplies may be obtained by local procurement, by transfer from the technical services, or by requisition on the Army and Air Force Exchange Service in the zone of interior. Allocation and shipment of supplies to the theater are dictated by available shipping space consistent with other priorities established to meet the primary military requirements of the theater. The determination of requirements, procurement, storage, distribution of supplies and the operation of resale facilities are the responsibility of the Army and Air Force Exchange Service.

177. Troop Information and Education Supplies

Troop information and education supplies consist of those items necessary to provide military personnel with information and education services and include printed materials, motion pictures, radio broadcast stations, receiving equipment, and transcriptions. Tonnages and space requirements are considered in the allocation of shipping and storage space for these supplies. The channels and facilities of other technical and administrative services are utilized for procurement, storage, maintenance, and distribution of these supplies.

178. Engineer Supply

a. Commanders must provide their troops with adequate quantities of safe water and must enforce water discipline. The G4 has general staff supervision of water supply. The engineer service determines water requirements; finds, records, and develops water sources; treats water and dispenses it; coordinates inspection and testing procedures; and procures and maintains water supply equipment. The engineer service operates water supply equipment for the supply of potable water to the individual user (except when individual or small unit treatment of water is necessary due to the exigencies of the situation); and coordinates and supervises the production of water for such large consumers as laundry units who operate the equipment. Raw water is normally provided by the using agency with organic personnel. The transportation corps handles bulk transportation of water by rail, highway, or water shipment, and normally provides its own water requirements for rail and marine operations. The surgeon inspects and approves water sources and tests and approves treated water. Commanders may find it necessary to furnish civilians and civilian installations with water. For details see FM 5-35, 21-10, 101-10, and AR 115-20.

b. The G2 has general staff responsibility for formulating plans and policies relating to and for supervision and coordination of map supply. Maps are requisitioned through the engineer and supplied by a system of engineer map depots in the communications and combat zones. The map depot system is an independent operation, separate and apart from the system for supply of other classes of

engineer supplies. Maps supplied to units must be the most recent edition and must represent the ground they are fighting on or about to fight on. The two normal sources of maps are by requisition on the zone of interior and from production by topographic units available in the theater.

179. Excess and Surplus Supplies

Excess supplies are those in excess of the quantity authorized for a particular organization, supply installation, activity, or area. Surplus supplies are those over and above the requirements of all government agencies.

a. Excess supplies may result from changes in plans or improper supply economy. Supplies that are excess in a unit are segregated, inventoried, and reported for disposition to the next higher echelon in the supply chain. The determination and elimination of excess supplies are continuous functions of all units and supply establishments. Excess supplies are evacuated through normal supply channels.

b. Excess and surplus property developing within the theaters are reported, redistributed, and disposed of as prescribed in appropriate regulations.

CHAPTER 11

LOGISTICS—EVACUATION AND HOSPITALIZATION

Section I. GENERAL

180. Responsibilities

The general plan of evacuation and hospitalization within the theater of operations is prepared by the chief surgeon of the theater in accordance with policies prescribed by the theater commander. Execution of the plan, under supervision of the theater headquarters, is decentralized to the major commands (FM 8-10).

181. Evacuation and Hospitalization System

The evacuation and hospitalization system is based on the principle that it is the responsibility of rearward units to relieve forward units of their casualties in accordance with the established evacuation policy. This principle extends from the responsibility of the zone of interior to evacuate and hospitalize all long-term casualties from a theater of operations to the responsibility of the battalion medical platoon to evacuate casualties from the companies of the battalion. Medical facilities are provided by each administrative echelon according to the expected needs for medical service and the casualties expected to be received from supported units.

a. The evacuation means employed depends upon the facilities available and the tactical situation. When surface transportation is used ambulances are substituted for litter bearers at the forward limit of vehicular traffic and ambulance trains are substituted for ambulances at the forward limit of rail traffic. In forward areas, helicopters, if available, are used to perform rapid evacuation and evacuation from areas inaccessible to other means of transportation. Other light aircraft may be used when the terrain permits. Transport type aircraft are used for evacuation from aerial ports and to supplement other means of transportation. Hospitals are sited well forward to reduce the distances casualties must be evacuated.

b. No patient is evacuated farther to the rear than his physical condition or the military situation requires. At each medical installation patients are sorted and classified as being suitable for treatment at that installation, requiring evacuation farther to the rear, or as being fit for duty.

c. Convalescent facilities are established in the combat zone and the communications zone. The mission of these installations is to receive and rehabilitate patients who no longer require active hospital treatment but who are not ready to return to duty.

182. Daily Admission Rates

The daily admission rate is the number of admissions per each thousand of troop strength per day. Daily admission rates in theaters of operations are influenced by climatic conditions, terrain, status of training of troops, type of combat, enemy capabili-

ties, and general sanitary conditions of the area. These factors must be considered and applied to experience tables in forecasting the requirements for hospitalization and evacuation facilities. Factors and tables are reexamined periodically to correlate experience from actual operations. For experience tables on daily admission rates, see FM 101-10.

183. Evacuation Policy

The theater evacuation policy is established by the Department of Defense upon the recommendation of the theater commander. This policy specifies which patients shall be evacuated to the zone of interior by designating the maximum number of days of allowable hospitalization. In conformity with the theater evacuation policy, major subordinate commanders establish evacuation policies subject to the approval of the theater commander, indicating the maximum period that patients may be held in their installations or areas (FM 101-10).

184. Preventive Medicine

a. Military operations require a definite plan for prevention and control of disease with provisions for all sanitary measures of a general nature as well as special disease-control procedures. The Army Medical Service and Civil Affairs/Military Government coordinate closely on public health measures for the reduction of hazards to troops.

b. Administrative control of sanitation is exercised by all commanders. Sanitary measures and related or identical biological defense measures are executed by personnel of the organization concerned or by work details under the supervision of preventive

medicine units of the Army Medical Service when the required measures are beyond the capabilities of organization personnel.

Section II. COMBAT ZONE

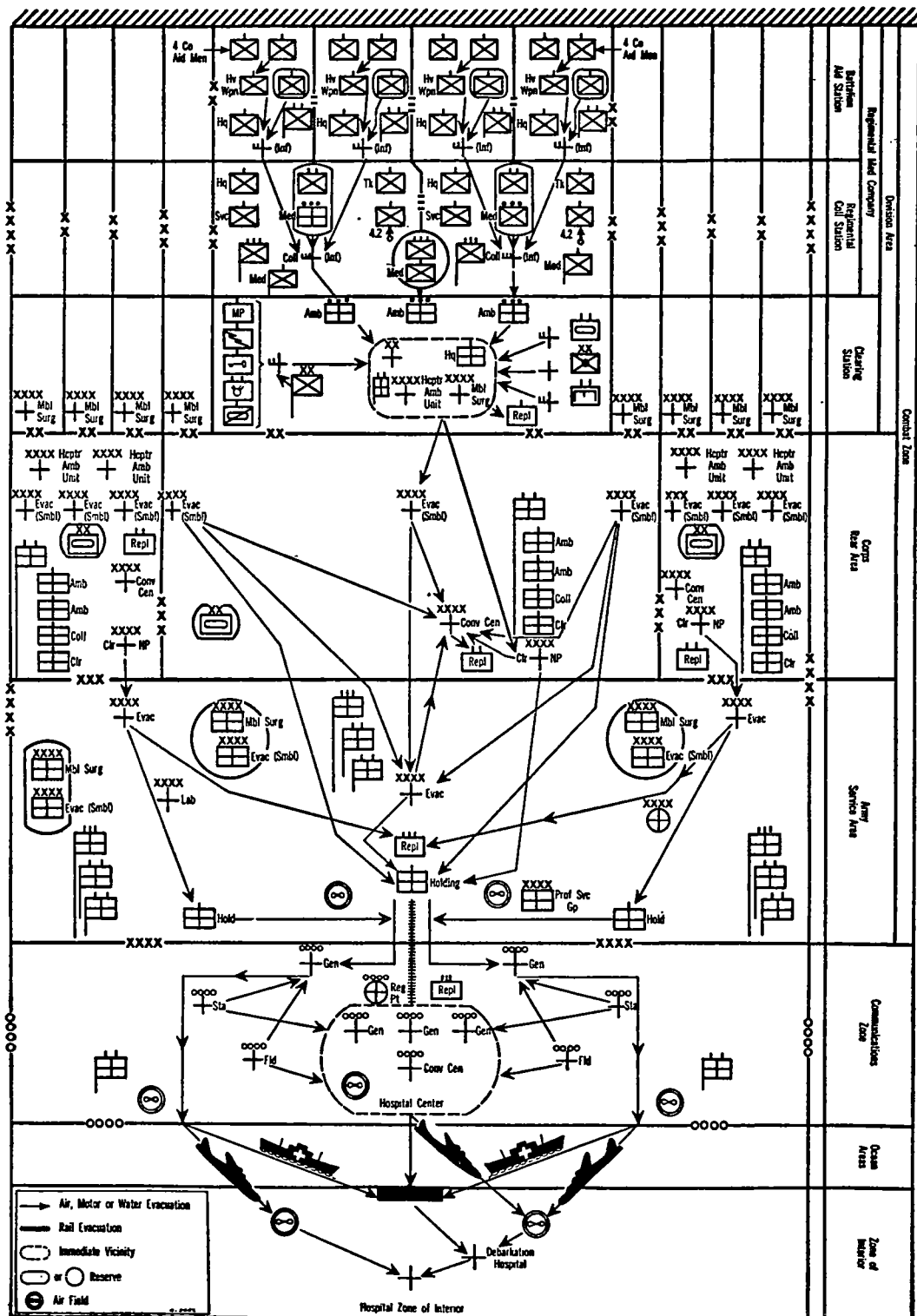
185. Division Medical Service

(fig. 25)

The division medical battalion relieves the regimental medical collecting stations and battalion aid stations of their sick and wounded, provides temporary care, and prepares the sick and wounded for further evacuation. The various elements of the medical battalion operate the division ambulance service, division dental service, and division medical supply service, and establish the division clearing station or stations. When the situation warrants, the division medical service may be augmented by reinforcements from the army medical service. For further details on medical operation in combat zone, see FM's 8-10, 17-50, and 57-20.

186. Corps Medical Service

Medical service in a corps, part of an army, consists of a medical section in the corps headquarters, which includes the corps surgeon and his assistants, and the medical detachment of corps headquarters company which provides medical service to the headquarters. Normally there are no medical units organic or attached to the corps. Division type medical battalion service is normally provided corps troops by an army medical battalion. However, operational control of certain field army medical units may be decentralized to the corps. When a corps is operating as an independent or as a separate command, medical units are attached to provide



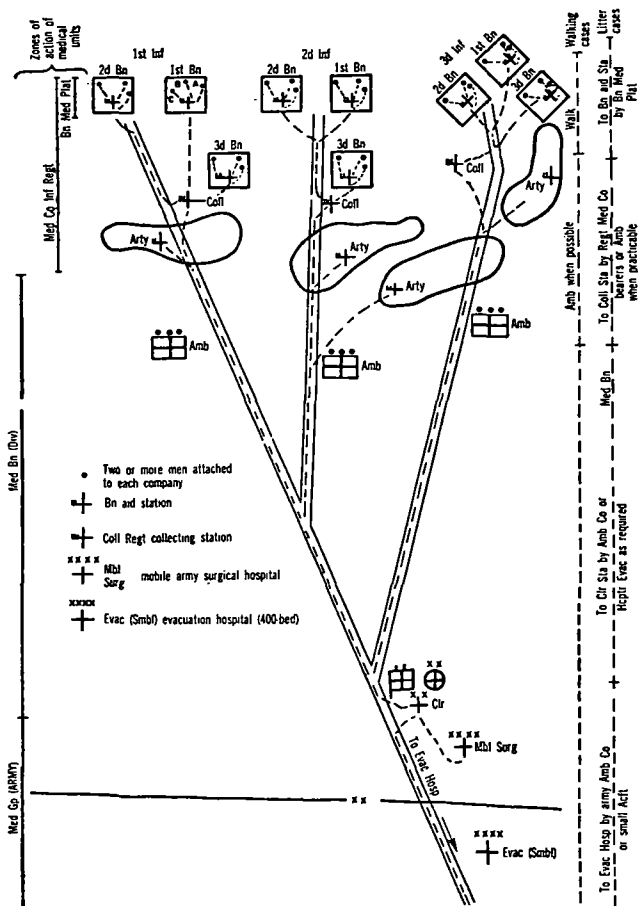


Figure 25. Diagram of medical service with the infantry division.

required medical service support. Medical service of the corps then becomes identical to that of the army, except on a smaller scale.

187. Field Army Medical Service

Field army medical service provides medical service for army and corps troops, supports the medical service of divisions, and evacuates patients from clearing stations serving division and corps to evacuation hospitals for hospitalization pending recovery, or for removal to army convalescent centers or to departure terminals for hospitals in the communications zone (FM 8-10).

a. Army collecting and ambulance units perform the bulk of the evacuation and transportation of patients within the army area behind the clearing stations of frontline divisions. Army evacuation hospitals are established within supporting distance of clearing stations and, though operating under army control, may be placed under corps supervision. A large percentage of patients must pass through evacuation hospitals in transit from the combat zone to hospitals in the communications zone. Normally, evacuation hospitals are established within the corps or army service area. When practicable, they should be near landing fields, on railroads, or on navigable waterways leading to the rear. A good road net to the front and to the rear is essential.

b. Mobile army surgical hospitals are used to support the division clearing stations by receiving nontransportable patients and preparing them for further evacuation by employing necessary surgical measures. Normally, one is located adjacent to each division clearing station.

c. Convalescent centers located in the army area receive convalescents and other patients who offer prospect of early restoration to combat fitness.

d. Evacuation and hospitalization of animals are handled by veterinary units in a manner similar to the evacuation and hospitalization of personnel.

188. Special Operations

a. *Airborne Operations.* The organization and operation of the medical service of an airborne force is similar to that of nonairborne forces. Airborne medical units accompany supported units at all times to provide prompt medical care and evacuation. Evacuation is accomplished to the division clearing station where patients are held and treated until evacuated to field army medical units in the airhead or directly to hospitals in the communications zone by air. Evacuation may not be accomplished until ground link-up in which case normal evacuation is effected. Mobile army surgical hospitals in the airhead treat the seriously wounded until they can be evacuated to evacuation hospitals in the airhead for further evacuation. As soon as airfields are established or ground link-up is effected, normal evacuation and hospitalization procedures are resumed (FM 8-10 and 57-30).

b. *Amphibious Operations.* In the initial stages of amphibious operations, patients occurring en route to landing beaches and on landing craft will remain aboard the ship or craft, or be transferred to appropriate ships for care and evacuation. During the initial phases ashore, patients are collected and treated by the shore party medical service and then evacuated from the beaches by landing craft. Pa-

tients evacuated by craft from the beaches are transferred to hospital ships or specially fitted and designated landing ships.

c. Other Special Type Operations. For a discussion of evacuation and hospitalization in other special type operations, see FM 8-10.

Section III. COMMUNICATIONS ZONE

189. Medical Service in the Communications Zone

Medical service in the communications zone is provided for all cases originating therein or received from the combat zone. The number and type of hospitals in the communications zone depend upon its location in relation to the zone of interior, the extent of the zone, the number of troops involved, the character of military operations and local civilian attitude, and the theater evacuation policy. Hospitalization requirements are anticipated and where possible existing facilities are utilized or construction is initiated early. Where the threat of atomic or guided missile bombing exists, the location of medical installations should be determined only after consideration has been given to a target analysis of the area. In order to avoid inadvertent bombing, hospital installations should not be located near strategic or tactical targets.

190. Hospitals Communications Zone

Normally, fixed hospitals and field hospitals serving as such are utilized in the communications zone.

a. Field hospitals are hospitals designed to give treatment in the field where it is impracticable to establish fixed hospitals, or to receive patients while construction of fixed type hospitals is under way.

Field hospitals are organized into three identical hospitalization units, each of which can operate under canvas, and independently, if required.

b. Station hospitals are fixed hospitals which serve only the limited area to which assigned and usually do not receive patients from the combat zone. They are established at locations in the communications zone where there is a sufficient concentration of military personnel to require local hospitalization.

c. General hospitals are fixed units (1,000-, 1,500-, and 2,000-bed capacity) designed for definitive treatment of all cases which occur within the theater of operations. Normally, the majority of these cases come from the combat zone. General hospitals are located a sufficient distance from the combat zone so that military reverses will not disturb their operation, and at points which afford good communications with both the combat zone and the zone of interior. They require utilities such as water and sewerage systems, electricity, gas, and station services, especially laundry units to supplement organic laundry facilities. Suitable railway sidings should be available near general hospitals if rail evacuation is to be utilized, and the availability of nearby landing fields for the use of aircraft engaged in evacuation is desirable. Whenever practicable, general hospitals are grouped into hospital centers of two or more general hospitals to facilitate control and to consolidate administration and utilities. Each hospital center may contain convalescent facilities which normally have a bed capacity equivalent to 20 per cent of that of the hospital center.

d. Veterinary field hospitals and veterinary general hospitals function for the care of animal casualties in

a manner closely paralleling that prescribed for personnel, except that final disposition of the animal is made within the communications zone.

191. Evacuation

Evacuation of patients from the combat zone is the responsibility of the communications zone commander. Armies of the combat zone notify the communications zone of their evacuation requirements. Communications zone provides the necessary personnel and transportation for motor or rail evacuation, arranges with theater air force for the provision of necessary personnel and aircraft for air evacuation, and arranges with theater navy for evacuation by ship.

a. Medical holding companies are units designed to provide temporary shelter and care for patients awaiting further evacuation. These units are located at railheads, airfields, ports, or beaches.

b. When transport aircraft are used for the evacuation of patients from the combat zone to the communications zone, air transportation and the care of the patients in flight are responsibilities of the theater air force commander. The movement of the patients to and from airfields and the loading and unloading of patients on and off airplanes are responsibilities of the army commander. If the Air Force has medical facilities at airfields, these responsibilities may be modified by mutual agreement.

c. Surface evacuation of the communications zone is the responsibility of zone of interior agencies. The responsibility of the communications zone commander ceases when the patients are loaded aboard the transportation being employed. However, the

communications zone may be delegated the responsibility for providing some personnel to assist in the care and treatment of patients en route.

d. Air evacuation to the zone of interior is the responsibility of the Military Air Transport Service. Communications zone arranges for the delivery of patients to the airfield and for their proper care until they are placed aboard the aircraft.

Section IV. THEATER AIR FORCE MEDICAL SERVICE

192. General Hospitals

General hospitals for the Army and the Air Force are operated by the Army.

193. Station and Field Hospitals

Station and field hospitals are operated by both the Army and the Air Force. In those areas where one department can provide services to the other department, the department with predominant interest, as determined by agreement or direction, will provide station hospital accommodations for both Army and Air Force personnel (FM 110-10).

CHAPTER 12

LOGISTICS—TRANSPORTATION

Section I. GENERAL

194. General

Transportation is the movement of personnel and materiel, and the equipment and facilities, including communications concerned, necessary to accomplish such movement. Methods of providing transportation support are dependent upon whether operations are conducted in a territory under a sovereign friendly government or in a liberated or occupied territory. This chapter deals principally with operations in areas where a sovereign friendly government does not exist. When support operations are conducted in a territory under a sovereign friendly government, the transportation mission will be accomplished in accordance with agreements made by the governments concerned or by the theater commander with the government of the territory in which operations are being conducted. These agreements normally will provide for the allocation of those facilities and services in whole or in part, which are essential to the support of military operations.

195. Transportation Service

a. The transportation officer of a corps, army, communications zone section, logistical command,

and higher echelons, is the special staff officer responsible for technical supervision of the transportation service required by the command. In divisions this responsibility is vested in G4. Transportation service is provided by the transport agencies and terminal agencies assigned to the command, and, as the situation requires, by transport agencies supporting the command. (FM 55-6.)

b. The transport means assigned to a command may include—

- (1) Transportation Corps units (railway, highway, helicopter, inland waterway, and terminal) coordinated and controlled by the transportation officer and his staff.
- (2) Pipelines operated by the Corps of Engineers in collaboration with and as required by the Quartermaster Corps.
- (3) Intratheater ocean shipping and coastal shipping operated by the Navy.
- (4) Air Force troop carrier command (Air Force combat cargo command).

c. Transport means which may be utilized to support the command include—

- (1) Military Sea Transportation Service.
- (2) Military Air Transport Service.
- (3) Civilian carriers and terminals.

The support furnished by these agencies normally is coordinated through the transportation officer of the command.

d. Commanders normally attach to subordinate echelons means of transportation necessary for them to accomplish their missions. The commander may retain under his control transportation means serving two or more subordinate echelons when the operating

efficiency of such transportation would be impaired if attached to only one of the subordinate echelons or divided between them. An example is the retention of control of military railway service, highway transport service, and inland waterways service by a communications zone commander in order to serve all sections of his communications zone.

e. At each echelon of command, operation is a function of the agency to which the means of transportation are assigned. Thus, all units operate their own organic transportation, except when pooled by higher authority (par. 258).

196. Transportation Economy

Transportation economy is the practice of conservation of transportation facilities, equipment, services, and fuels to insure maximum tactical mobility and effective administrative support to military operations when needed. It is related directly to supply economy.

Section II. MOVEMENT CONTROL

197. Definition

Movement control is the control exercised over the routing and movement of personnel, troop units, and supplies over lines of communications in conformity with the movement plan. This control is exercised by Transportation Corps movement control units.

198. Movement Planning

a. Movement planning consists of four steps which must be accomplished jointly and continuously, but not necessarily in the order listed below.

These are determination of requirements, analysis of capabilities, establishment of priorities, and preparation of the movement plan.

- (1) *Determination of requirements.* At each echelon of command, prospective users of transportation, or their staff representatives, periodically submit an estimate of requirements for transportation for a future period. The transportation officer of the command assembles these estimates, makes adjustments or corrections in accordance with changing situations, and adds any known requirements imposed by higher authority. These requirements constitute the command's requirements for movement.
- (2) *Analysis of capabilities.* Current knowledge of transportation capacities is essential to movement planning. This knowledge of capacities is maintained by the compilation of information on the physical characteristics of the various modes of transportation available to the command. Included is information on the capability of units and installations to receive and ship. Data are defined and expressed in terms of movement capacity.
- (3) *Establishment of priorities.* Requirements normally exceed capabilities, thus imposing a need for the establishment of priorities in order that the commander's plan may be appropriately implemented. Establishment of priorities is a function of command and a staff responsibility of the G4 in coordination with the G3. Actual im-

plementation of the established priorities is a responsibility of the transportation officer.

- (4) *Preparation of movement plan.* The movement plan is prepared by the transportation officer and coordinated with the staff for the accomplishment of required movements by available transportation facilities, projected over a stated period of time, except for the movement plan for bulk petroleum products which is a responsibility of the Quartermaster Corps.

b. Principles of movement planning.

- (1) Achieve the most effective employment of means by:
 - (a) Optimum loading of each transportation unit.
 - (b) Immediate redeployment of excess capacity.
 - (c) Utilization of return capacity.
 - (d) Employment of each type of means to fill the role to which it is best suited.
 - (e) Utilization of all available means.
- (2) Minimize rehandling by accomplishing movement by one mode from origin to destination to the extent possible.
- (3) Avoid necessity for backhauling.
- (4) Maximum use of the most economical means as far forward as possible. The several modes of transportation are enumerated in the order of their economy: water, pipeline, railway, highway, and air.

c. Movement Plan. The movement plan allocates requirements to the available modes of transporta-

tion, reflecting the priorities established by the commander, and, when published, is the authority for the movement of specified shipments. It specifies what is to be moved, when it is to be moved, where it is to be moved, and by what mode of transportation, but not how the designated transportation agency conducts its operations.

199. Supervision of Movement

Fundamental to the effective supervision of movement is specific, timely and accurate information. Movement information is accumulated through technical transportation channels and from other sources such as military police and engineer services. In certain situations it is essential to have information relative to a given area in which no transportation officer is located. In those cases field transportation offices are established for the specific purpose of obtaining such information. Adequate communications facilities are essential to the supervision of movement (FM 55-10).

Section III. PIPELINES

200. General

a. Pipelines are an important element of the transportation net in theaters of operations. Pipelines provide the most economical means of land transportation for bulk liquids (gasoline, oil, water, etc.) inasmuch as the flow of their cargoes is continuous and is accomplished with a minimum of personnel and without the use of vehicles that in themselves consume fuel. Maximum use should be made of pipelines in order that other modes of transportation may be released for movement of other cargoes. Increasing mechanization of the army, plus continual

development of aircraft and surface vehicles with greater fuel consumption rates, increases requirements for petroleum products.

b. Pipelines, when used to make bulk deliveries of petroleum products or water, have the following advantages:

- (1) They are operationally the most economical mode of transportation.
- (2) They reduce requirements for other means of transportation.
- (3) They are less susceptible to destruction by enemy action than other means of transport and can operate where conditions arising from enemy action or terrain make other means of transportation impracticable.
- (4) They are the most expeditious means for ship-to-shore delivery.

c. The quartermaster staff coordinates with the engineer and transportation staffs to determine requirements for pipelines. The engineer service determines requirements for construction, constructs, operates, and maintains military pipeline systems. The quartermaster service has overall responsibility for the procurement, storage, and issue of petroleum products. The signal service provides means of signal communication for control and operation of military pipelines.

201. Planning Pipeline Systems

Military necessity is the most important factor in selecting the route of a pipeline. However, the following factors should also be considered:

a. The route presenting least altitude deviation should be selected.

b. Natural cover should be utilized to the extent practicable.

c. Pipelines should parallel existing highways or railways to facilitate construction, operation, security, and maintenance.

d. Pipelines should be located with a view to ultimate objectives in future operations.

e. Pipeheads should be located where—

(1) Storage facilities are available or can be constructed.

(2) Access is available to as many means of transportation as possible for further distribution of the product.

Section IV. WATER

202. General

Water transportation is characterized by its ability to transport economically large volumes of varied types of cargoes at relatively slow speed over great distances. Its utility is limited by the adequacy of loading and unloading facilities and its vulnerability to attack. Water transportation includes ocean shipping, coastal shipping, and inland waterways.

203. Ocean Shipping

Ocean shipping is provided and controlled by the Military Sea Transport Service (MSTS) which is operated by the Chief of Naval Operations as executive agent for the Secretary of Defense. Military shipping requirements are based primarily upon the volume of troops and cargo to be transported and the length of the sea routes. Based on these requirements, priority in shipping allocations is given to theaters of operations in accordance with the overall

strategic plan. A theater commander may prescribe ports of destination for vessels en route to his theater, and may request that such vessels be diverted to ports or other discharge areas within his theater. To meet the requirements of the theater commander, ship holding or diversion points may be established by MSTs to permit vessels entering the theater to be held or diverted at these points and moved to destinations as discharge facilities become available. A theater commander exercises control over ocean shipping allocated for intratheater use.

204. Coastal Shipping

Coastal shipping operated by the Navy makes use of water lines of communications along a coastline. Coastal vessels generally are small permitting access to port facilities not suitable to ocean-going vessels. Coastal type vessels may operate interisland services to supply small or isolated garrisons.

205. Inland Waterways

a. Inland water transportation is controlled and operated by the transportation corps. It is comparable to rail transport in its ability to carry large tonnage and heavy single loads; however, it is slower. Inland waterways include all lakes, rivers, and canals with adequate channel to permit passage of barge traffic or river shipping. Inland waterway operations may include ferrying over bodies of water which are impracticable to bridge. When present in a theater of operations, inland waterways are valuable as a means of moving bulk cargoes, such as coal, construction materials, and bulk petroleum products. Its exploitation frees faster means of transport for higher priority shipments (FM 55-26).

b. Factors to be considered in the planning, development, and use of inland waterways include seasonal floods and the drying up or freezing over of waterways; availability of skilled personnel such as bargemen, pilots, and tugboat operators to augment trained Transportation Corps personnel; amount and condition of military and local equipment and facilities; types of barges or craft suitable for the waterway; coordination with the engineer service, especially with regard to construction of bridges and removal of obstacles, channel depths, widths and heights of clearances, development of suitable points for transfer of loads to other means of transportation, and inclusion of plans for the development of feeder rail and highway nets.

c. Inland waterway equipment and facilities include lighters, barges, tank lighters, towboats, shallow draft craft, and terminal facilities such as piers, wharves, materials handling equipment, marine maintenance shops, and adequate signal communication. Ocean ports may be used as terminal facilities.

Section V. RAILWAYS

206. General

a. The military railways of a theater of operations include all railways constructed, maintained, or operated in support of United States or allied forces, whether by military personnel or civilians under military direction. The value of railways for military movement lies principally in their ability to haul heavy loads continuously over long distances at a comparatively high speed. For overland communications, the railway with its great carrying power remains the basic means of military movement and

should be used to its maximum capacity in any theater where railways exist or can be developed. Its restriction to a permanent way reduces its flexibility, however, and makes it vulnerable to interruption (FM 55-50).

b. Rail operations in a theater are classified as phase I, II, or III according to the degree of military effort required. Phase I is operation by military personnel in areas or situations where the civilian railway employees either are not available or it is deemed inadvisable to use them. Phase II is operation by military personnel augmented by civilians. Phase III is operation by civilians with the minimum military supervision necessary to accomplish the military mission.

207. Organization

The military railway system is organized into railway divisions for purposes of operation and maintenance, approximately as in civilian practice. A railway operating battalion is assigned to each division, a military railway group is composed of 2 to 6 railway divisions, 2 or more railway groups may be assigned to a numbered transportation military railway service, and 2 or more numbered military railway services may be assigned to general headquarters, military railway service. The commander of a military railway service is under the operational control of the appropriate transportation officer.

208. Equipment

a. Railway fixed equipment includes the necessary trackage, terminals, yards, stations, buildings, repair shops, and fueling and watering facilities. Railway equipment may be divided into three general classes:

motive power (locomotives), rolling stock (passenger and freight cars), and special equipment, such as pile drivers, cranes, and special maintenance equipment. Maximum use is made of equipment and personnel from existing civilian railways.

b. Railway shop battalions perform depot maintenance of equipment at one or more large railway shops, normally located in the vicinity of important railway centers within the communications zone.

209. Construction and Maintenance

a. Construction and maintenance of railways in a theater of operations are functions, respectively, of the engineer service and the transportation service, except that major rehabilitation is a responsibility of the engineer service. Responsibility for construction rests with the commanders of the communications zone and the armies in their respective areas. The great amount of time required for new railway construction makes it imperative that existing railways be exploited to the utmost. Reconnaissance and selection of railways to be rehabilitated are responsibilities of the transportation service in coordination with the engineer service. In phases I and II rail operations, the main effort should be concentrated on selected primary and secondary rail routes essential to overall support of combat operations.

b. After railways are constructed, maintenance in the communications zone and in the combat zone to the forward limit of traffic is the responsibility of the transportation corps.

c. The construction of new wire circuits for the operation of railway communication is a responsi-

bility of the signal service. When all circuits on pole lines are allotted exclusively to its use, operation and maintenance are responsibilities of the military railway service. When circuits are used jointly by the military railway service and other agencies, maintenance is the responsibility of the signal service.

210. Operation

a. Operation of railways throughout the communications zone and within the combat zone to the forward limit of rail traffic is a responsibility of the transportation service. Responsibility of the railway service for supplies moving by rail begins when the loaded car is coupled to an engine or train for movement and ends when the car is placed on the designated siding for unloading. To provide security en route, military police security battalions or other personnel may be attached to the appropriate railway unit headquarters to serve as train guards. Where military railway trains are subject to air attack, support by antiaircraft artillery units may be provided.

b. Commanders of ports, depots, railheads, or other terminal supply points are responsible for loading and unloading cars in the minimum time practicable.

Section VI. HIGHWAY

211. General

Military highway transportation encompasses the effective use of roadways and the efficient operation of vehicles thereon. For details on the operation of convoys and military motor transportation, see FM's 25-10 and 55-35.

212 Use of Highways

(fig. 24)

Two forms of control, organizational and area, are exercised to insure that highways are used most effectively and efficiently as dictated by military operational requirements, both tactical and administrative.

a. Organizational Control. This control is exercised by the commander of the organization or unit using the road during highway movements. Organizational control must insure that rules of the road and traffic regulations as prescribed by higher headquarters are followed. Within limitations prescribed by higher headquarters, this control includes measures such as fixing the speed, spacing, and routing; adhering to schedules; enforcing discipline at halts and along the route of march; and local security.

b. Area Control. This function is exercised over all highway traffic moving within or through a given area; for example, a communications zone or section, or field army area. It is superimposed over organizational control and is the means by which movement over highways is correlated between units or organizations using the highways. Area control is employed only to the extent necessary to insure an orderly and effective movement of vehicles over the highways. The control exercised by larger headquarters such as theater army or communications zone may extend only to the designation of intersectional routes or the establishment of areawide standing operating procedures for coordination of combat and communications zone highway movement. Area control is a command responsibility and usually is under the general staff supervision

of G4. Area control is enforced by military police traffic control personnel.

213. Military Police Traffic Control

Military police traffic control is a function of the provost marshal and includes the enforcement of laws, orders, and regulations and the direction and disciplinary control of traffic. Military police supervised by the area provost marshal enforce the traffic control plan which is based on the traffic circulation plan.

214. Classification of Routes

Routes are classified in accordance with the degree of regulation and control imposed. This classification is not to be confused with road classification, a corps of engineers function. Actual control employed at any time should be the minimum required to obtain desired results (FM 5-36).

a. Open. An open route is a roadway over which a central traffic authority normally exercises only a minimum of supervision. Ordinarily, supervision on an open route is limited to control of traffic at intersections with a dispatch, reserved, or a supervised route, and to the posting of necessary traffic signs and regulations. Convoy control personnel needed on an open route are usually furnished by march columns using the route, except at intersections controlled by military police.

b. Supervised. A supervised route is a roadway over which limited control (by means of traffic control posts, traffic patrols, or both) is exercised by a central traffic authority. Small units are ordinarily allowed to use supervised routes without prior correlation of individual march schedules, but time of

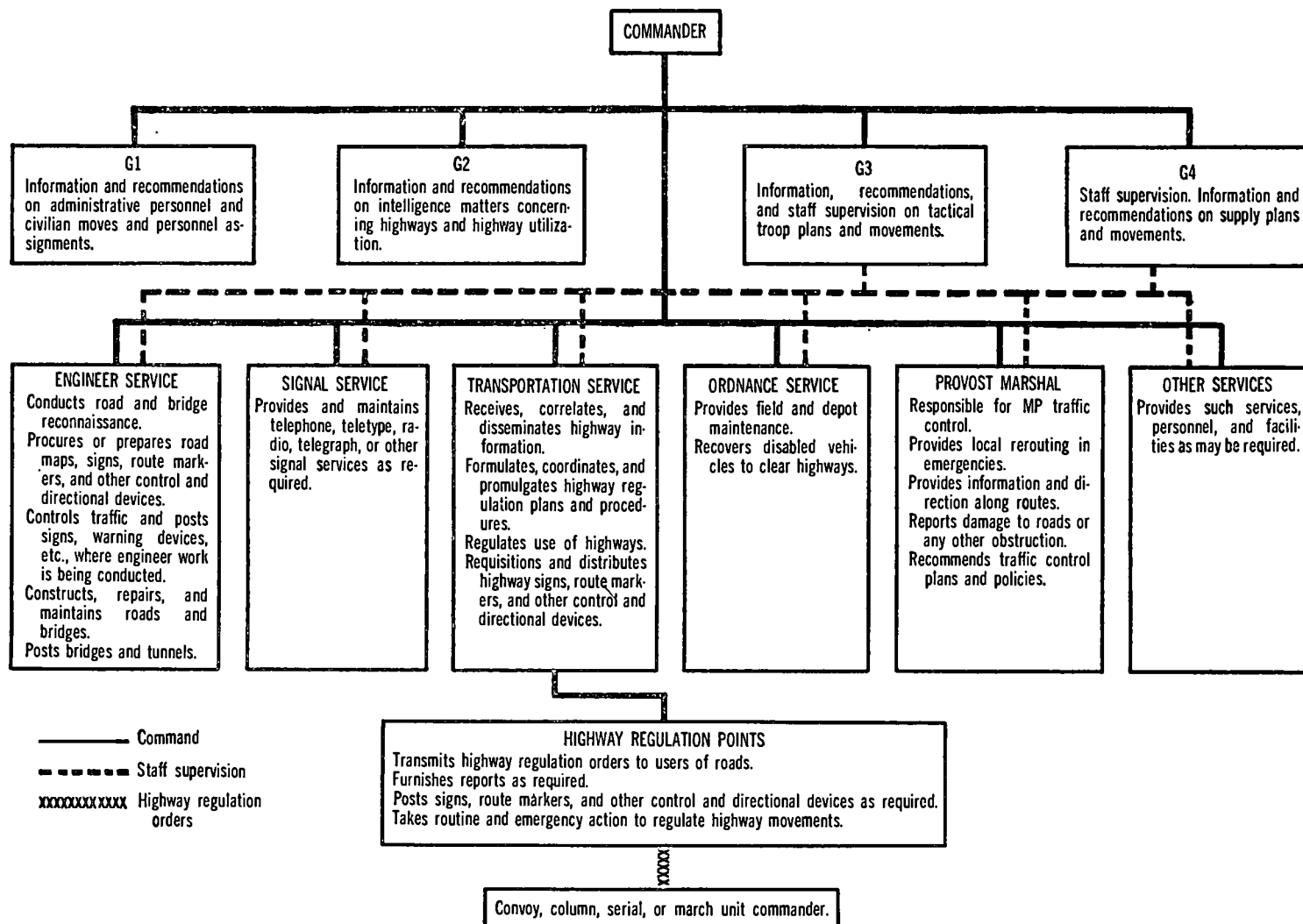


Figure 26. Highway traffic regulation.

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access to the route may be regulated in conformity with the traffic situation.

c. Dispatch. A dispatch route is a roadway over which full control, both as to priorities of use and the regulated movement of traffic in time and space, is exercised by a central traffic authority.

d. Reserved. A reserved route is one that is set aside for the exclusive use of a designated unit or specified type of traffic, or for other specific purposes. Reserved routes may be operated as supervised or dispatch routes at the discretion of the commander.

215. Highway Regulation

(fig. 26)

Highway regulation is a transportation staff function which involves planning, routing, scheduling, and directing the use of highways by vehicles, personnel afoot (including troops, refugees, and other civilians), and animals to meet operational requirements.

a. Planning. A basic plan for highway regulation must be developed predicated upon an accurate and current estimate of the situation, and must incorporate sound highway regulation principles. This plan will include, dependent upon the level of command and the regulation and control necessary, the following information:

- (1) Traffic circulation plan, including road net and direction of movement, classification of routes, bridge capacities, tunnels, and other restrictions on the route.
- (2) Priorities of movement of cargo and personnel.
- (3) Location of depots, ports, and terminals.

- (4) Communications system.
- (5) Types of vehicles to be used.
- (6) Speed, safety, use of lights, security, and other pertinent regulations.
- (7) Location of highway regulation points and military police traffic control and information posts and traffic control headquarters.
- (8) Reporting procedures.

b. Routing. Highway traffic is routed from origin to destination by the transportation service. Through traffic is routed either by regulating the entire route by an intersectional service or by subordinate area commands following established procedures of the highest command concerned.

c. Scheduling. Scheduling is the means by which priority of movement and traffic density are controlled and congestion is avoided. It is achieved by the regulation of departures from origin or points en route, the rates of advance en route, and arrivals at destination or points en route. Normally scheduling is done by organizational control on open and supervised routes and by area control on reserved and dispatch routes.

d. Regulating. Highway regulation points are set up along dispatch routes to transmit orders to convoy commanders and to report progress of serials. Personnel of highway regulation points work in conjunction with military police manning traffic control posts.

e. Emergency Routing and Scheduling. Adjustments of traffic routing and scheduling frequently are necessitated by changes in the tactical situation, damage to roads, or traffic congestion. Under such

conditions military police assist column commanders to take necessary immediate action. Movements are not delayed awaiting orders from higher headquarters, but decision as to action to be taken is made by the column or unit commander.

216. Coordination With General and Special Staffs

To insure harmonious, effective, and efficient planning and implementation, G4, through the transportation officer of the command coordinates and supervises the development and execution of area traffic regulation. The general staff informs and recommends as to matters pertaining to personnel, intelligence, information, and the tactical and supply plan. The special staff agencies, in addition to information and recommendations, provide services within their respective fields of activity for effective implementation of area traffic regulation and control.

Section VII. CROSS-COUNTRY TRANSPORT

217. Cross-Country Transport

Cross-country transport in areas in which fixed facilities are not present may be accomplished by mechanical means such as wheeled vehicles to the limit of their designed capabilities, tracked vehicles, amphibious vehicles, narrow gage railways, and aerial tramways; animals, such as mules, horses, elephants, camels, oxen, and dogs; and portage by soldiers and civilians. Mechanical means of transport require specialized design for operation over mountains, plains, deserts, swamps, water, or snow. When available, mechanical means are preferable to the use of animals or men. For details see FM 25-6 and 25-7.

Section VIII. AIR

218. General

a. Air transportation in military operations is of two types:

- (1) Air movement operations in which a number of aircraft are made available at a specific time and place for a specific mission upon the completion of which they revert to a pool or are assigned another mission.
- (2) Air transport operations in which a more or less continual operation from one airfield to another, or to several others, is established to carry whatever personnel, supplies, or equipment may be presented for movement.

b. In addition to the obvious advantages of speed and flexibility, air transportation has the additional military asset of being made available more rapidly than most other forms of transport, particularly in forward areas where ground facilities normally have been destroyed. Air transport operations require only terminal facilities which can be constructed rapidly and economically.

c. Air transport operations require local air superiority and routes more or less free from antiaircraft and other ground fire. Achievement of maximum capabilities with available aircraft requires electronic navigational and landing equipment to minimize the effects of darkness and unfavorable weather conditions. Continued success is dependent upon availability of equipment, materials, and personnel to maintain adequate landing facilities.

d. Air transportation between the zone of interior and theaters of operations and between oversea theaters normally is provided by the Military Air

Transport Service (MATS) operated by the Air Force. Air transportation for both tactical and administrative airlifts within a theater normally is provided by troop carrier commands or other units of the theater air force. Army helicopter units and fixed wing aircraft provide the Army with organic air transportation for tactical and administrative missions. Civilian air transportation on both common carrier and on contract basis often is used to supplement and augment military air transportation.

219. Delivery of Supplies and Equipment

Supplies and equipment may be delivered by air transportation to the using units by means of air-landing, parachuting, or free-dropping.

a. Air-landing is the preferred method of delivery since it results not only in the delivery of the cargo in the best condition but also in the most efficient use of the available aircraft. Helicopters and assault type aircraft are capable of air-landing cargo and supplement larger conventional air transports. Air-landed supplies are often landed at considerable distance from the using units and require the use of highway or railway transport to the final point of use.

b. During airborne assault and followup phases, and in supplying isolated detachments, it may be necessary to use aerial (parachute) resupply techniques. In parachute delivery, there is considerable dispersion and some damage of cargo. The operation requires the use of specially trained riggers and packers and special, expensive equipment. Parachute delivery generally decreases the overall capacity of the air transport fleet because of the lower payload per aircraft.

c. Free dropping of supplies is feasible for only a few types of supplies. Ordinarily the special packaging required greatly limits the use of this method.

220. Control

a. Control of air movement operations is exercised through the use of a priority system. Air transportation boards in overseas theaters are allocated airlift by the Joint Military Transportation Committee, an agency of the Joint Chiefs of Staff. Theater allocations are then broken down into service allotments by the air transportation board with each service responsible for suballocation of its assigned lift. Theater allocations are also made for intratheater airlift. Coordination of air movements with other forms of transportation is the responsibility of the appropriate theater or area transportation officer.

b. Inasmuch as weather, aircraft maintenance problems, landing field conditions, and many other factors change the flow of aircraft, a local agency, the joint airlift coordinating committee, made up of representatives of the organizations being served by the airlift and of those operating the airlift, is usually formed to make a daily movement program.

c. Requests for air transportation are placed directly upon aerial ports responsible for programming the shipment within the established movement plans. Aerial ports call forward the materials either from supply points under control of the ports or from supporting technical service depots.

Section IX. TERMINAL OPERATIONS

221. General

a. Terminal operations comprise those functions and responsibilities for the handling of personnel and cargo between origin and destination where transfer from one mode or unit of transportation to another is necessary. The most important military terminals are ports, beaches, staging areas, transit storage installations, and transfer points (FM 55-25).

b. Operations of terminal installations (except aerial ports and bulk petroleum facilities) is a responsibility of the transportation service. At large and complex terminal operating installations, such as ports, detachments or units from other technical services may be assigned as required. They assist the transportation agencies in expediting delivery by providing technical advice pertaining to identification of items, special handling of certain items when required, and other matters of a technical nature.

c. All terminal installations in theaters of operations must be dispersed sufficiently and must utilize natural terrain features to the maximum practical extent to minimize the effect of hostile attack by mass destruction weapons.

d. The quartermaster corps has dominant interest in the supply and distribution of petroleum products. It operates off-vessel discharging and loading hoses including dock manifolds, if an integral part of a quartermaster dispensing installation. The corps of engineers constructs and maintains bulk storage facilities, and operates terminal and regulating storage facilities not an integral part of a quartermaster

installation. Engineer troops are placed under the operational control of the appropriate quartermaster agency, when the efficiency of the distribution system would be improved.

222. Ports

Ports may be water ports or aerial ports. Ports located in the zone of interior are known as ports of embarkation. Both ports of embarkation and over-sea ports may perform embarkation or debarkation functions (FM 55-25).

a. Port areas include beaches and such other portions of the coastline being used for, or reserved for use of, discharge or loading of troops and cargo. One port headquarters may operate a combination of water discharge points in the same vicinity (FM 100-31, Ch. 9).

b. Aerial ports used in military operations are operated by air force units of the command in which the operation occurs, and under the supervision of the appropriate air force commander.

223. Beaches

a. Beaches are used for landing personnel and cargo when ports are not available, port facilities are not adequate or not otherwise available, or the threat of hostile attack by mass destruction weapons necessitates dispersion beyond the limits of established port facilities. Appropriate units are trained and equipped to operate beaches as well as ports.

b. The capacity of a beach to discharge and clear supplies and personnel to inland destinations often is a limiting factor in military operations. The capacity of a beach is dependent upon beach exits, the amount of equipment available for clearing the beach,

nature of the bottom and offshore slope, contaminated areas, logistical requirements of the forces involved, obstacles, anchorage, tidal and surf conditions, supporting road and rail nets and beach operating areas.

c. The quantity of personnel and supplies which may be discharged and moved across a beach to inland destinations often is limited by the inability of the inland destination to unload and return transport to the beach.

d. Special handling and floating equipment which may be used in the operation of a beach area include floating and fixed type cranes, floating piers, harbor craft, amphibious trucks, landing craft, barges, tread-way bridges, aerial tramways, and other cargo discharge devices.

224. Staging Areas

Staging areas are established by the transportation service for the accommodation of troop units and transient personnel between moves over lines of communications. Usually, staging areas are located within easy marching distance of terminals, transfer points, or normal stopping places, such as ports, rail terminals, airfields, or highways over which troop movements are expected. The physical geography of the location selected for a staging area should afford protection against hostile attack by mass destruction weapons. Troop areas and installations must be widely dispersed to prevent the creation of a remunerative target and to lessen the effect of the employment of mass destruction weapons. Facilities may vary from simple bivouac areas to organized establishments with covered shelter, mess, supply,

and medical services. Provision must be made for both personnel and the equipment accompanying them. Often, provision must be made for reuniting troops with their equipment which has been shipped or provided separately. Every effort must be made to expedite movement through the staging area.

225. Transit Areas

Transit areas are established by the transportation service for the handling of cargo en route over lines of communications. Their principal purpose is to provide facilities for cargo in transit while awaiting transportation or to release transportation equipment when delays en route occur. When the need for transit areas exists, they are usually located in the vicinity of ports and at transfer points or other transportation terminals. Facilities may vary from open areas to established installations with large warehouses and elaborate rail, highway, water, and/or air facilities. Dispersion of cargo and installations is required.

226. Transfer Points

a. Transfer points are established by the transportation service where transfer of cargo from one mode or unit of transportation to another is necessary and both means of transportation can be expected to be simultaneously available. Transfer points are also required at a change of gage on a railway. When cargo is transferred from a transport service to transportation means belonging to the consignee, the consignee is responsible for the handling of the cargo.

b. Transportation corps units and either transportation or quartermaster service units are generally used at transfer points. Equipment such as cranes, roller conveyors, and other cargo-handling equipment to reduce manpower requirements should be provided.

CHAPTER 13

LOGISTICS—SERVICE

Section I. MAINTENANCE

227. Maintenance

Maintenance is the care taken and work done, including minor repairs, to keep any item of materiel or equipment in specified standard condition. Thus, maintenance of materiel includes inspection, testing, servicing, classification as to serviceability, repair, rebuilding, approved modification and reclamation.

a. Each technical service is responsible for technical supervision over all phases of maintenance of equipment assigned to it. The chiefs of technical services will make such technical inspections within the Army as they deem necessary to supervise properly the maintenance of equipment assigned to their respective services. Technical supervision is not to be construed as operational responsibility which includes organization, management, administration, and operation of a facility. These functions are prerogatives of command normally exercised by the organization responsible for performing the maintenance mission.

b. *The performance of organizational maintenance is the responsibility of the unit commander.* It includes preventive maintenance and minor repair performed by the user of the equipment and by specially trained personnel of the organization. For example,

in an infantry battalion, organizational maintenance on motor vehicles is performed by organic personnel of the company and/or battalion.

c. The performance of field maintenance is the responsibility of field commanders. It is performed by either organic or attached maintenance units of the division or field maintenance units of a higher echelon of command. Field maintenance is normally limited to support of organizational maintenance, repair and/or replacement of unserviceable parts, subassemblies, assemblies, and major items.

d. Depot maintenance *in the zone of interior* is the responsibility of the chiefs of technical services. *In theater of operations depot maintenance is the responsibility of the theater army commander when authorized by the Department of the Army.* It is performed in fixed or semifixed installations normally located in the communications zone of the interior. It consists of repair and rebuild of equipment, assemblies, subassemblies, and component parts normally for return to depot stock.

228. Principles of Maintenance

Principles of maintenance include the following:

a. *Organizational maintenance is the keystone of the whole army maintenance system, and failure in its performance seriously affects the entire system.*

b. Preventive maintenance is the most important function of organizational maintenance. It includes systematic and periodic inspection, correction of incipient failures before they occur or develop into major defects, and the servicing necessary to maintain equipment in a satisfactory operating condition.

c. Commanders at all levels conduct inspections

within their own and subordinate organizations to insure the adequacy of preventive maintenance within their command. Such inspections may be performed on behalf of the commander by qualified individuals of the appropriate technical service or maintenance unit.

d. Repairs to equipment are performed as far forward as is consistent with the tactical situation, time available, capabilities of personnel, and availability of spare parts and tools. This saves transportation and puts equipment back into operation in the quickest possible time. No echelon performs the work of a higher echelon to the neglect of its properly assigned functions. It is often more desirable to move maintenance personnel to equipment than to move equipment to personnel. For this purpose, contact repair service is established, providing mobile repair parties consisting of mechanics with spare parts and special equipment.

e. Each unit is authorized a supply of spare parts, assemblies, and tools commensurate with its maintenance responsibilities.

f. Maintenance units are disposed laterally and in depth to offer the best possible service to equipment being maintained. Maintenance units remain sufficiently close to units being served to give close support. So far as practicable, nonorganic maintenance units should support the same tactical units throughout an operation. This improves liaison, understanding, and cooperation between supporting and supported units.

g. Heavy maintenance shops and facilities, once established, remain in operation in the same locality as long as practicable without sacrificing service to

supported units. This principle is particularly applicable to units performing depot maintenance.

h. Equipment repaired by maintenance activities in direct support is normally returned to the using unit from which received. Equipment repaired in heavy maintenance and depot maintenance shops is normally returned to supply channels (see AR 750-5).

229. Interservice Coordination

There are a number of complex items of equipment containing components which are the responsibility of more than one technical service. In order to provide prompt and complete maintenance for such items, there must be close cooperation among the services concerned and provision made for mutual support in their respective facilities.

230. Recovery

Recovery is the collection and removal of unserviceable or abandoned materiel having reclamation value. The initial movement is to collecting points ordinarily located at or near roadsides, or to maintenance and supply establishments for repair and return to service. Battlefield recovery is performed by combat troops supplemented, as necessary, by service troops.

a. Recovered materiel which cannot be used or repaired in the combat zone is moved promptly to communications zone installations where it may be salvaged, repaired for further service, or shipped to the zone of interior. Movement of recovered materiel is primarily the responsibility of technical service troops.

b. Combat units do not retain or repair nonorganizational recovered materiel except for serviceable

and immediately usable materiel authorized for retention.

c. Field maintenance resources of all technical services perform inspections of damaged materiel, condemn items that are not economically repairable and disassemble such items to reclaim usable parts and assemblies.

Section II. LABOR

231. General

Labor is available from sources that include quartermaster service units, allied or enemy civilians, United States civilians, and prisoners of war. In order to release as many military personnel as possible for combat duties, *maximum practicable use will be made of these sources of labor personnel*, consistent with operational and security requirements. Planning for the logistical support of operations must provide for the maximum utilization of all categories of labor to effect the highest degree of manpower economy. Planning for operations in any geographical area will include an estimation of the available nonmilitary manpower, its utilization by the technical services in particular, and a corresponding reduction of manpower requirements for tables of organization and equipment units for service support operations. Type B T/O & E units, which are composed of the necessary equipment and a qualified military cadre, are designed to utilize personnel other than military to fill specific spaces in the units. This type unit conserves manpower and provides a uniform method of integrating civilian personnel into military units while still retaining the integrity of the units.

232. Responsibilities

a. The theater commander is responsible that combat effectiveness and overall military efficiency are not diminished by employing personnel of the Armed Forces for work which can be performed by civilians. Responsibilities in connection with civilian employees include agreements with the national government concerned; procurement, transportation, contracts, accounts, and records; establishment of uniform rates of pay and working conditions; medical arrangements; and the organization and administration of labor companies and pools (par. 233). The theater army commander implements the established policies and applies them to army operations. He may be required to provide the Air Force and Navy with certain services in connection with the utilization of civilian employees.

b. The theater army or communications zone commander usually makes arrangements with local governments concerning procurement and distribution of labor, publication of detailed uniform wage scales, and conditions of employment. Initially, these may be made by the using services and units under announced theater policies but are centralized as early as practicable in labor services of the major areas concerned. Administration and supply are decentralized to using units under the guidance of an overall policy from the theater army commander. In any case the responsible agency coordinates with the civil affairs/military government service which establishes the necessary contacts with civil authorities for local procurement.

c. The assistant chief of staff, G4, is normally assigned primary responsibility for the development of

policy, organization, and procedures for the employment of unskilled and technically specialized labor. G1 is responsible for functions in connection with civilian labor as outlined in FM 101-1. G4 will determine and furnish to G1 the qualitative and quantitative allocations of available labor to the technical services and, where the available manpower is insufficient to meet all requirements, will establish priorities for allocations to the technical services. G4 will supervise the utilization of labor by the technical services. The quartermaster corps operates the labor service in coordination with the military police corps for prisoner of war labor and CA/MG service for civilian labor.

233. Labor Pools

a. Labor pools may be formed of service troops, civilians, prisoners of war, combat troops, or any combination thereof. In the Army, the nucleus of the labor pool consists of quartermaster service units (companies or battalions) used for general labor purposes. Combat troops are used as labor only as a last resort.

b. In the communications zone and the field army, quartermaster service units are desirable as the nucleus of general labor pools to supplement the more specialized labor furnished by the technical services. The labor needs of each installation must be analyzed in order to determine the amount of permanent labor necessary and the amount that can be furnished from a general labor pool to meet fluctuating demands.

234. Quartermaster Service Troops

Quartermaster service companies are organized to perform labor functions in a theater of operations. These troops may be employed as a labor pool; as such, they are made available on a request basis to those organizations of all branches and services requiring labor. In addition to labor supervision units, personnel of all arms and services, including quartermaster service companies, may be used to supervise indigenous and prisoner of war labor.

235. Prisoners of War

a. Prisoners of war constitute a major source of labor. Their use must be within provisions and limitations of the Rules of Land Warfare. The circumstances of their use must consider military security requirements, adequate guards, and other similar restrictions. For details of conditions of employment for prisoners of war as laborers consult FM 27-10, FM 19-40, TM 19-500, and FM 110-10.

b. When prisoners of war are used as laborers, they may be allocated from a pool in which they are essentially employed as unskilled labor. However, to obtain full utilization of skills and training, it is desirable to screen prisoners of war and to assign skilled technicians from among them to work which utilizes their skills. Orderly provision must be made for equipping, administering, and guarding such specialists. It is desirable to organize them into labor units, thereby insuring their retention as skilled workers.

236. United States Civilian Employees

United States civilian personnel requirements for army components of oversea commands not involving United States territory will be determined by the Department of the Army, based on appropriate war plans. United States nationals may be employed by direct procurement, or United States contractors may be employed to perform particular jobs, in which case the contractor will be responsible for the procurement of his own labor.

Section III. ADDITIONAL SERVICE RESPONSIBILITIES

237. CBR Services

Chemical, biological, and radiological services in support of army troops and other theater of operations forces are provided in accordance with the following principles.

a. Small-scale CBR decontamination is the responsibility of each unit and is performed in accordance with procedures outlined in FM 21-40 and TM 3-220. Decontamination beyond the capability of units is performed by chemical decontamination units, assisted in some cases by engineer units with heavy equipment.

b. Emergency chemical impregnation of small quantities of clothing is performed in the field by using units by means of expendable field impregnating sets. Large-scale impregnation of clothing is performed in impregnating plants by chemical processing units.

c. The collection and forwarding of information about enemy CBR activities are the responsibilities

of each unit, as outlined in FM 21-40. Exploitation of enemy CBR installations and captured materiel for technical information is accomplished by chemical intelligence teams.

d. Construction of improvised CBR protective shelters is a responsibility of each unit commander as outlined in FM 21-40 and TM 3-350. Construction of permanent and semipermanent shelters and installation of collective protectors provided by chemical supply units are performed by engineer units (par. 46).

238. Construction

Construction is a function of the engineer service. The theater commander establishes the policies under which construction is performed within the theater. Under this policy subordinate commanders establish priorities of construction based on the recommendations of G4, which are obtained by coordination with the general and special staff sections concerned. Using services are responsible for making known their general requirements for the construction of installations and facilities. Based on these priorities and requirements, the engineer service prepares detailed layouts and constructions plans. The more important principles governing military construction in theaters of operations are as follows:

a. Existing facilities must be used to the utmost before initiating new construction. Materials and labor locally available must be exploited as supply economy and manpower conservation measures.

b. Only the minimum facilities consistent with military necessity can be provided. Economy of

construction is most important. Construction requirements for civilian rehabilitation must be included in the establishment of priorities by the commander.

c. Using services must express their requirements well in advance of actual needs to permit procurement of the necessary construction material and supplies.

d. The permanency of any structure erected should be only that consistent with military necessity at the time.

e. The design of each project will allow for possible future expansion.

239. Real Estate

The procurement of real estate in a theater of operations is accomplished in accordance with the Rules of Land Warfare, and directives issued by the Department of Defense as announced in policies by the theater commander. In allied or friendly countries procurement of real estate may be based on international agreements or agreements reached between the theater commander and the country concerned. The acquisition and disposition of real estate is a function of the engineer service. The G4 of subordinate commands has general staff responsibility for coordination between all using services. Independent acquisition and disposal by using agencies results in confusion and inequitable distribution of facilities. The more important factors to be considered in connection with real estate activities are as follows:

a. Efficient advance planning is essential with respect to overall requirements and allocations of

areas and facilities among subordinate commands and services.

b. An administrative organization for handling real estate acquisition, inventories, contracts, payments, claims, and accounting must be provided.

c. Coordination of real estate requisitions frequently is obtained by the formation of an area real estate allocation board composed of representatives of the several commands concerned working in coordination with civil affairs/military government.

d. The requisitioning unit is responsible for the selection of real estate sites under policies announced by higher headquarters. The staff engineer acts only as staff adviser, requisitioning agent, and office of record in carrying out command and theater policies (par 47).

240. Quarters

Quarters is the provision and administration of shelter for a command, including its personnel, headquarters, establishments, and supplies.

a. Shelter may be provided in the form of bivouac, improvised cover, or shelter tents; camp, where troops are under heavy tentage; cantonment, where troops are in temporary structures; and billets, where private or public buildings are occupied. Billeting is limited in the United States and its overseas possessions by the Third Amendment to the Constitution. In friendly territory, local laws and customs apply. In hostile territory, billeting is resorted to as authorized by the theater commander. Type of shelter provided and location of quarters are governed by consideration of the mission of the unit, policies of the theater commander, availability of

areas and shelter, dispersion, security, sanitation, training and other facilities, and comfort of the troops. For tactical considerations, see FM 100-5. Requisites for quartering areas include adequate routes of communications to and within the area, protection against the elements, adequate supply of water, good natural drainage, firm dry soil, and freedom from sources of disease.

b. The administration of shelter is the responsibility of the commander having territorial jurisdiction in the area. Administration includes the allotment of quartering areas and existing facilities to using commands, the establishment of regulations governing the utilization of quartering areas and facilities by using commands, and the provision of facilities and utilities as may be necessary. The degree of administration exercised by the commander having territorial jurisdiction varies widely. In forward or remote, sparsely settled areas, practically all administration is performed by the using command. In urban localities and in rear areas the commander having territorial jurisdiction may set up headquarters which issue standing orders for quartering and ensure compliance therewith. These headquarters also provide signal communication, counter-intelligence, construction, maintenance, utilities, and other facilities such as guard, police, medical service, recreation, and mess.

c. The engineer on the staff of large territorial and area commanders handles the actual administration of the acquisition, maintenance, and disposition of real estate.

d. G3 exercises general staff supervision over selection of areas for quartering; G4 supervises

administration and allocation of quartering except that pertaining to headquarters and headquarters personnel, which are functions of G1.

241. Utilities

The engineer service is responsible for the operation and maintenance of all engineer utilities (par 47). Engineer utilities teams are provided for these various purposes in tables of organization and equipment. Local civilians are employed whenever practicable.

242. Camouflage

Camouflage discipline is a responsibility of all commanders. Camouflage operations are performed by all units, the engineer service being responsible for technical advice and assistance and furnishing special camouflage materials. Maximum results are obtained by the best utilization of existing terrain features and employment of local natural materials rather than by the procurement and utilization of extensive artificial camouflage (FM 5-20).

243. Fire Fighting

a. Fire fighting and fire prevention are the responsibility of all commanders. The engineer service provides technical advice and supervision and technical fire-fighting units. Such units are available only at congested centers of military activity, such as large hospitals or depots; in other areas troop units must fight fires supplemented by civilian fire fighters when available. Fire-fighting equipment is organic to units engaged in hazardous duties, such as ordnance ammunition units or liaison aircraft sections. The best means to avoid loss and damage

by fire is through fire prevention. This requires frequent inspection, careful planning of new construction, and good fire prevention discipline. Therefore, the commander of each installation prescribes fire drills for all units and standing operating procedures for a fire alert.

b. In the development of passive air defense and area damage control plans and procedures, the engineer service is charged with submitting recommendations for fire fighting and control of conflagrations as well as submission of fire control training programs and the technical supervision of such training.

244. Finance Services

Finance services and comptroller are covered in paragraphs 56 and 57.

245. Dental and Veterinary Services

In addition to hospitalization and evacuation of sick and wounded (par. 48), and preventive medicine and personal hygiene (par. 83*a*), dental and veterinary services are provided in theaters of operations as follows:

a. Dental services consist of periodic dental examinations of all troops; dental care; manufacture of dental prostheses; and dental professional service in hospitals. The army dental service of a theater of operations is of four types: division dental service, hospital dental service, area dental service, and supplemental dental service (FM 8-10).

b. Veterinary service, in addition to the professional care, evacuation, and hospitalization of animals, performs food inspection functions, primarily on foods of animal origin. It also renders

professional advice in the selection of animals to be procured for military use (FM 8-10).

246. Ordnance Services

Ordnance services pertaining to explosive ordnance disposal, ballistics and technical service, technical inspections and technical assistance, and water-proofing are provided in accordance with the principles set forth below.

a. The ordnance service performs maintenance at two levels: field maintenance and depot maintenance as described in paragraph 227. Details may be found in Field Manuals of the 9 series.

b. Explosive ordnance disposal is performed by specialized ordnance teams whose mission is the removal and/or disposal of unexploded artillery shells, mortar and rocket projectiles, and unexploded or delay action bombs, or other missiles including special weapons.

c. Mobile ballistics and technical service teams are provided to armies and independent task forces to measure muzzle velocities and calibrate artillery weapons for maximum effectiveness; to render technical advice relative to the accuracy life of gun and howitzer tubes; and to render technical advice and reports on ballistics performance and effect of weapons and ammunition lots.

d. Inspections of organizational maintenance of ordnance equipment and technical inspections of ordnance materiel in the hands of troops are performed by qualified technical personnel from the ordnance service on behalf of the commander and with his approval. Technical assistance teams are provided for the purpose of aiding the using unit

commander in the organizational maintenance and supply training of his personnel.

e. Waterproofing of organizational ordnance materiel for shipment is accomplished by ordnance personnel generally located at the port of embarkation. Waterproofing of ordnance materiel for amphibious operations is accomplished by each unit in accordance with ordnance technical instructions and advice.

247. Quartermaster Services

Quartermaster services are provided in accordance with the following (par. 50):

a. Operation of baggage storage depots is a responsibility of the quartermaster service and provides for the receipt and storage of baggage which cannot be carried by individuals and for the collection and storage of baggage that becomes lost. All baggage left for storage is examined and government property removed and returned to issue channels. Personal property is censored for shipment to the zone of interior on the return of the individual.

b. Maintenance and repair of quartermaster clothing and equipment are performed by clothing, textile, shoe, mechanical and metal repair units; laundry and bath units; parachute maintenance units; and office equipment repair detachments. Repair of quartermaster materiel in the combat zone is performed by grouping quartermaster semimobile type reclamation and maintenance units in the vicinity of depots or supply points operating under the control of army. Quartermaster air equipment, such as aerial delivery, parachutes and heavy drop equipment, is stored and maintained by parachute maintenance units.

nance units, and supplied through normal quartermaster supply channels. In the communications zone, the bulk of the maintenance is performed by quartermaster reclamation and maintenance units, normally at or under the control of quartermaster depots whose repair facilities may be supplemented by fixed equipment. The operation of fixed equipment repair installations requires additional labor which must be furnished from civilian or troop sources.

c. Bath and laundry service is made available to all troops. Clothing contaminated with persistent gases is decontaminated by laundering. In the combat zone, a section or a platoon of a mobile laundry company may be attached to a hospital and move from one location to another with the hospital to which attached. Quartermaster units organic to the infantry, armored, and airborne divisions provide only the minimum bath and laundry facilities for the troops of the division. In the communications zone these services are performed by quartermaster units operating fixed equipment, normally under communications zone section control exercised through quartermaster depots.

d. Burials are made in established cemeteries except when isolated interments may be necessary. Bodies in isolated graves are reburied in established cemeteries as soon as possible. Battlefield search and evacuation to collecting points usually are the responsibility of combat organizations. Sites for the establishment of temporary military cemeteries are selected by the quartermaster with the technical assistance of the engineer. For details concerning

the graves registration service in theaters of operation see paragraph 80, FM 10-63, FM 101-1, and 110-10, and Army Regulations of the 30 series.

e. Bakery units can operate in small teams and are located near class I supply points to save transportation.

f. Refrigeration in the combat zone usually is limited to refrigerated van service for perishable items (foods and medical supplies). In the communications zone semifixed refrigeration facilities and fixed refrigeration machinery installed and maintained by the engineer service normally are operated by quartermaster units to provide refrigerated storage space.

g. Petroleum drum manufacturing companies are quartermaster units which normally operate in the communications zone and provide personnel and equipment to manufacture 55-gallon drums for petroleum products. Drum cleaning and filling units also operate in the communications zone and supplement filling, cleaning, and reclamation units in depot petroleum supply companies. Mobile petroleum supply companies operating in forward areas also perform drum filling and cleaning functions. Depot and mobile petroleum products laboratories are quartermaster units which normally operate under quartermaster depots and provide personnel and equipment to gather specimens and test petroleum products in the field.

h. Quartermaster sales stores, both fixed and mobile, are established in theaters of operations. The theater army commander prescribes the items to be sold and the modifications of TM 10-215 under which these sales stores are to be operated.

248. Signal Services

Signal services, to include the operation of signal agencies, construction of signal facilities, and photography, are provided in accordance with the following principles (par. 51):

a. Signal service is provided by units of the Signal Corps and supplemented by units of the using organizations. The principal signal means include messengers and visual, sound, radio, telephone, telegraph, teletypewriter, facsimile, television, radar, and other electrically operated signal communication facilities.

b. Construction of signal facilities is performed by signal troop units. Full use is made of existing military and civilian signal communication facilities, including civilian operating and construction personnel. Common use of signal facilities by several units is desirable for economy, but requires command coordination as to priorities and signal procedure.

c. Signal photographic units are assigned from theater army and army levels to perform photographic missions normally down to division level, augmenting organic photographic personnel if necessary.

d. Signal film library detachments provide motion picture and film strip projectors and projectionist training; and motion pictures and film strips for troop training, information, and orientation.

Section IV. SERVICE ORGANIZATIONS

249. Infantry Division

Service elements of the infantry division consist of unit trains and organic technical service units.

a. The unit trains of regiments and battalions of the division include all personnel and vehicles required for administrative support of their respective units. Unit trains are divided into combat trains and field trains. Combat trains consist of personnel and vehicles that are immediately essential to the conduct of battle. These will include such personnel and vehicles as are concerned with providing resupply of ammunition and maintenance, medical, engineer, and similar facilities. Field trains consist of the remainder of personnel and vehicles not immediately essential to the conduct of battle.

b. In the offense, combat and field trains are usually combined and located close in rear of their parent organizations. In the defense, or at other times for administrative expediency, field trains are located farther to the rear. Unit trains are controlled by regimental and battalion commanders through their S4s.

c. The division service area is that area between the division rear boundary and the area occupied by regiments of the division in contact. The technical service units of the division operate throughout the division service area and frequently furnish contact parties or detachments to the forward elements.

d. Service installations are located to best perform their mission of close and continuous support of combat operations. Locations selected should provide defilade, dispersion, and cover and concealment sufficient to render ineffective hostile bombing and artillery fire. To offset their vulnerability to enemy ground action, service installations are located near friendly troops. Suitable roads forward, to the flanks, and to the rear are essential.

Hardstanding and shelter enhance the efficient operation of supply and service units.

e. There is no formal organization for division trains provided in tables of organization. However, for special purposes such as motor movements, defense, and area damage control, all or part of unit trains and division service units may be organized under the command of a designated individual.

250. Armored Division

Armored division service elements include unit trains and division trains.

a. Unit trains are composed of combat trains and field trains as discussed in paragraph 249. Combat and field trains normally remain within the combat command concerned. Combat command trains may march and bivouac with the division trains when such a procedure is required.

b. The division trains headquarters of the armored division is provided to command and administer the division trains. The division trains commander is a tactical commander. He commands all assigned and attached units of the division trains and is directly responsible to the division commander for all activities taking place within the division trains, except for those operations which are responsibilities of the division special staff officers (FM 17-50).

251. Airborne Division

a. In addition to units normally found in division trains, the trains of the airborne division contain a parachute supply and maintenance company. All units of the trains are air transportable. When the airborne division makes an assault landing by parachute or assault aircraft, the service elements, with

the exception of the parachute supply and maintenance company, accompany the airborne division to the objective area. Normally, only the light transportation of the service elements is taken with the assault airborne echelon. The heavy transportation of the units is moved to the objective area either in the seaborne or ground echelon or by air-landed aircraft (FM-57-20).

b. The rear base echelon of the airborne division, consisting of rear echelon division headquarters, the parachute supply and maintenance company, and detachments of the service elements, remains normally at the rear base area. When it is planned to mount an airborne operation from the new forward area, the rear base echelon may be moved forward by air, sea, or ground means, or any combination thereof.

252. Corps

Corps has no organic service elements. Service troops are attached to the corps in accordance with its mission and with the number and types of divisions and corps troops to be supported. If corps is operating as a part of an army, its functions primarily are tactical, and a minimum of service elements are attached. These minimum attachments include medical units to render medical service to corps troops; engineer units for construction and maintenance of roads and bridges as well as for tactical bridging operation, both in the corps area and in support of the divisions. Transportation car and truck units are attached to perform transportation missions beyond the capabilities of divisions and corps troops. Supply, hospitalization,

and service for corps troops and divisions normally are provided by army installations designated to support the corps. If corps is operating independently, its functions are both tactical and administrative, and service elements are attached as for an army. Administrative, cellular, or technical service elements attached to corps are not passed on to divisions but are placed under the operational control of the appropriate corps staff officer (FM 100-15)

253. Army

a. The army has territorial, tactical, and administrative functions. It is organized to provide immediate logistical support for the Army and Air Force units within the army area. The allocation of technical service units to an army is based on the requirements for supply, evacuation and hospitalization, transportation, and service. Army technical and administrative service units may be attached to subordinate units or remain under army control. When combat units are transferred between armies, a proportionate transfer of technical service units is appropriate.

b. An army technical service may be organized to give logistical support to all units in a particular area, to operate along functional lines, or to combine both of these methods. As an example of area organization, all army ordnance maintenance units may be organized into battalions or groups having responsibility for all ordnance maintenance in a designated area. In this situation, when an ordnance maintenance unit is moved from one area to another, it passes to the control of the ordnance battalion or group responsible for maintenance in

the new area. As an example of functional organization in this same army ordnance service, one battalion might be assigned the mission of rehabilitating combat units pulled from the line.

254. Cellular Team Units

A cellular team unit is a unit composed of separate teams (T/O & E cells), each of which includes personnel and equipment required for the performance of a specific function. One or more teams may be selected to form a military unit to meet a special requirement not currently provided for in fixed tables of organization and equipment. Teams also may be used to augment units organized under fixed tables where increments of less than company size are required. Details of organization and employment of cellular units are covered in current tables of organization and equipment and field manuals of the administrative and technical services.

255. Station Services

Station services are those services, performed by operating personnel permanently assigned to an installation, pertaining to all housekeeping and administrative duties required to maintain and operate the physical facilities and to provide supplies and services for all other permanently assigned personnel, as well as for nonoperating personnel attached to the installation. Station services are essential for normal operations at fixed theater installations such as ports and depots. These services include units from most of the technical and some of the administrative services. When necessary for military administration and housekeeping purposes,

some or all the station services may be grouped and organized into composite units.

256. Pooling of Services

A pool is the combination of all or a part of the resources of several organizations under central control for common use or a specific mission for the common benefit of the command as a whole. Pools may be formed for vehicles, materials handling equipment, labor, or special types of services such as construction or maintenance. Pooling of personnel and equipment has the advantage of providing the means for more efficient distribution of the workload and flexibility in meeting peak demands. Disadvantages of pools are the lowering of morale and reduced administrative control because of the separation of troops and equipment from their parent organization. Pooling may be employed as a temporary expedient or as a permanent measure. Temporary pooling is used when requirements exceed immediate capabilities; for example, the pooling of cargo vehicles to fill the gap caused by the failure of other means of transportation. Establishment of permanent pools may be desirable. In the case of a general depot, pooling of the resources of component units will provide a source of common labor, materials handling equipment, or general purpose vehicles to meet the fluctuating demands of the individual services.

257. Labor Pools

See paragraph 233.

258. Vehicle Pools

When an urgent requirement exists for additional cargo transportation for the movement of supplies

not normal to the mission of the unit, some of the cargo vehicles of several units may be pooled to accomplish the task. In organizing such a pool, it must be recognized and taken into consideration that the normal capabilities of the units, from which vehicles have been withdrawn, to accomplish their own missions will have been reduced accordingly.

a. The principle of pooling vehicles is not limited to any branch or any type of transportation. In infantry divisions, the only vehicles that are earmarked for general cargo hauling are those of the organic quartermaster unit. However, except for Geneva Convention protected vehicles, motor vehicles issued as an aid to the movement of active weapons, such as prime movers or weapons carriers, motor maintenance vehicles, and command and fire direction radio vehicles, all trucks of any unit should be considered as a source of transportation to be used as required. The nucleus of vehicle pools for armies is formed by transportation truck units. Army truck companies may operate independently, be attached to army installations such as depots, or be placed under the control of battalion or group headquarters and operate under the Army transportation officer as desired. With the exception of specialized vehicles, such as ordnance shop trucks, signal service and engineer service vehicles, ambulances and surgical trucks, all vehicular loads of cargo vehicles may be dumped and these vehicles pooled and made available for other use when required by emergency conditions.

b. In the communications zone, as in the combat zone, careful analysis of local vehicle requirements for each installation must be made to determine the

need for permanently assigned vehicles and needs that should be filled by use of vehicle pools.

259. Pooling of Troops of a Service

Pooling of troops of a service is advisable under some circumstances; for example, engineer troops may be pooled. In general, it is desirable that each major organization (army, corps, division, and communications zone, and its sections and similar organizations) have its own engineer component under the control of the organization commander. This system provides for desirable decentralization which, in turn, usually results in rapid execution of the engineer mission. However, in some cases, considerations of economy of personnel, transportation, and materiel may dictate the pooling of all or part of the engineer services in any large organization under one engineer command. This system provides highly centralized control and overall coordination of the engineer effort and is adapted particularly to operations in a restricted area such as task force operations, the invasion of an island, or similar amphibious operations when air, ground, and service construction is executed in the same general area. Another example is the pooling of several maintenance and supply groups into a service center.

CHAPTER 14

LOGISTICS—MANAGEMENT

260. Management

a. The principles governing the four major logistical operations of supply, evacuation and hospitalization, transportation, and service are discussed in chapters 9, 10, 11, 12, and 13. The coordination of these operations and their correlation with the strategic and tactical operations which they support constitute the function of logistical management. Principal activities pertaining to the discharge of logistical management responsibilities are—

- (1) Determination and establishment of the logistical organization.
- (2) Supervision of the logistical organization.
- (3) Preparation and maintenance of estimates of the logistical situation.
- (4) Preparation of logistical plans.
- (5) Preparation of logistical instructions.
- (6) Supervision of the execution of logistical instructions.
- (7) Preparation and utilization of logistical records and reports.

b. A logistical organization is set up within the framework of the territorial and command organizations described in Chapters 1 and 2. At each echelon of command, responsibility for logistical operations rests with the commander. He is assisted by his staff as indicated in Chapter 3 and FM 101-5.

c. FM 101-5 presents general principles, outline forms, and examples to be used in the preparation of estimates, plans, orders, records, and reports. In any specific situation, the G4 adapts these procedures to the logistical problems facing his commander. In particular—

- (1) He maintains a continuous estimate of the logistical situation and keeps himself constantly informed of changes in the situation and in the tactical or strategic plans for operations to be supported.
- (2) He prepares plans to meet the problems indicated by the estimate. He coordinates these plans with the other general staff sections.
- (3) He translates logistical plans into action by preparing orders and instructions necessary to put the plans into effect. All such orders and instructions are issued in the name of the commander.
- (4) He makes frequent visits and inspections to keep himself and his commander informed of the situation, to insure that the commander's instructions are understood, to insure that operations are being carried out as intended, and to obtain the views and recommendations of those charged with the execution of logistical operations.
- (5) He establishes a system of logistical records and reports which will furnish the information required by him or by higher authority for current operations, future plans, and historical purposes. He designs the system to require a minimum of effort at all echelons

of command by keeping to a minimum the number of reports and the amount of detail in the reports. He avoids overlapping reports and reports made at intervals more frequent than necessary. He analyzes reports to evaluate their accuracy and to obtain information which will affect future operations. For these purposes and for the information of the commander and his staff, he maintains and analyzes progress charts and graphs on essential activities.

261. Rear Boundaries

Rear boundaries delimit territorial responsibility and serve as a basis for coordinating service operations. For a discussion of lateral boundaries, see FM 100-5.

a. The geographical limits of the theater of operations are designated by the Secretary of Defense. The rear boundary of the combat zone is designated by the theater commander, normally on recommendation of the theater army commander. Army group normally retains no territorial control thus making army rear boundaries coincide with the combat zone rear boundary. Corps rear boundaries are designated by the army commander, and division rear boundaries by the corps commander. Location of rear boundaries are based on the coordinated recommendations of G4 and G3.

b. Principles to be considered in recommending the location of rear boundaries include—

- (1) Location far enough to the rear to permit room for maneuver and to include suitable area for the location of service installations.

- (2) Movement forward as soon as practicable to relieve combat units of the administration of territory not required for their combat or administrative operations.
- (3) Location in relationship to the road net and other routes of communications. It is desirable that corps have a good lateral road behind division rear boundaries, and that army have lateral road behind corps rear boundaries to facilitate lateral movements of troops and supplies.
- (4) Designation by easily recognizable terrain features such as roads, railroads, rivers, or canals.
- (5) Movement planned and initiated well in advance and the decision to move announced in time to permit reconnaissance prior to the actual time of transfer of territorial responsibilities.

c. Rear boundaries do not act as a barrier to logistical operations. By coordination between the headquarters responsible for various administrative areas, the logistical installations and operations of one headquarters may be present in the area of another. Control and operation of intersectional services are responsibilities of the communications zone commander to the forward limit of such services.

262. Rear Echelons of Headquarters

The rear echelon of a headquarters handles the details of administration. Once established in a suitable location, it should remain as long as efficient service can be rendered from that locality. Factors to be considered in selecting a suitable location for a

rear echelon are (1) enemy capabilities, (2) routes of communications, (3) interior road net, (4) signal communications facilities, (5) cover and concealment, (6) utilization of existing buildings and facilities, and (7) proximity to other units.

263. Property Accountability

a. Property accountability is established in theaters of operations in accordance with regulations prescribed by the Department of the Army and specific instructions of the theater or theater army commander. The purpose of the accounting system is to provide for maintenance of records of stocks on hand and to insure prompt delivery of supplies, to protect supplies against loss or theft, and to facilitate inventory. A primary basis for a successful logistic system is a good property accounting system.

b. Property accounts may be audited upon orders of the theater commander or major subordinate commander, under the technical supervision of the Army Audit Agency, when deemed necessary for the support of operations or for the proper protection of the interests of the Government.

c. All commanders are charged with insuring that neither individuals nor organizations of their commands waste or misuse supplies, materials, and equipment furnished to them nor accumulate an unauthorized surplus thereof.

264. Area Damage Control

Area damage control is the responsibility of the area commander. Area damage control planning is a staff responsibility of the assistant chief of staff, G4. Execution of the plan is a function of the area damage

controller who is designated by the responsible commander.

a. Area Damage Control Plan. The area damage control plan is the commander's plan to restore administrative support which has been interrupted by enemy action or natural disaster. The area damage control plan must be closely coordinated with the rear area defense plan, prepared by G3, and is distributed as an annex (or appendix) to the rear area defense plan.

- (1) Area damage control planning is normally performed by—
 - (a) Field armies.
 - (b) Communications zone headquarters and sections.
 - (c) Units (both tactical and service) located in an army service area or in the communications zone. Area damage control plans of such units are coordinated by the commander of the area in which they are located, or by higher headquarters.
 - (d) Communications zone installations located in any army service area. These area damage control plans are coordinated by field army headquarters.
 - (e) Field army installations located forward of the corps rear boundary. Active and passive defense plans are coordinated by the commander of the area in which the installation is located.
- (2) In tactical situations, normal operational planning procedures and security measures in force in corps and lower units should include area damage control provisions for

organic and attached units. When corps and lower units are located in the army service area or in the communications zone the role of these units in area damage control planning is as directed by the area commander.

- (3) The army service area, communications zone, or communications zone section is divided into a number of sectors for damage control purposes. An area damage control center (ADCOC) is established for overall control of damage control operations within the army service area, communications zone or section, and a sector damage control post (ADSCP) is established in each sector. In a large section or a communications zone district area damage control headquarters may be required and would control two or more area damage control headquarters. Sectors will conform so far as possible to the designated defense areas of the area defense plan. It will not always be possible to have the same boundaries in both plans although an effort should be made to effect this. Defensibility of terrain will be a more important consideration in the location of area boundaries for the area defense plan than in the location of sector boundaries for the area damage control plan. In selecting sector boundaries for area damage control purposes, the desirability of having these boundaries coincide with area defense boundaries must be balanced against the need for distributing as equitably as

possible the military population and administrative installations among the sectors. Details concerning the form and content of the plan are covered in FM 101-5.

b. Area Damage Control Measures.

- (1) Measures such as adequate dispersion and duplication of installations, proper echelonment of headquarters, provisions for alternative communications facilities, and multiple channels for the same type of supply are taken in advance to minimize damage and to aid in preventing serious interruptions of support to combat forces.
 - (a) Dispersion of supplies and facilities within a complex should be governed by safety distances as given in technical manuals of the appropriate services.
 - (b) The distance from one type of supply or facility within one complex to the same type of supply or facility within an adjacent complex should not be closer than the maximum diameter of influence of mass destruction weapons within the enemy capabilities.
 - (c) The duplication of logistical facilities required will depend upon the enemy capabilities and the extent of risk that may be acceptable. When duplication of facilities is necessary, every effort will be exerted to plan the operations in such a manner that a minimum increase in troop basis will be required.
- (2) Area damage control must provide for control of damage and the rehabilitation of dis-

rupted services caused by the enemy's use of mass destruction weapons or from natural disaster. Measures necessary for protection of civilian communities and military installations include establishment of command and control measures; reestablishment of communications within the affected area; supply procedures; procedures for first aid and evacuation and hospitalization; transportation details to include circulation and traffic control and requests; services to include fire prevention, protection, and control; messing arrangements; CBR defense; explosive ordnance disposal; reestablishment of utilities; enforcement of laws, orders and regulations; burials; stragglers; and other such measures. (FM 100-5, FM 100-31, and FM 101-5.)

APPENDIX

REFERENCES

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AR's and SR's 25 Series	Claims
SR 95-400-5	Memorandum of Understanding Re- lating to Army Organic Aviation
SR 110-1-1	Index of Army Motion Pictures, Television Recordings, and Film Strips
AR 115-20	Field Water Supply
AR 220-315	Unit Awards
SR 310-20-3	Index of Training Publications
SR 310-20-4	Index of Technical Manuals, Tech- nical Regulations, Technical Bul- letins, Supply Bulletins, Lubri- cation Orders, and Modification Work Orders
SR 310-20-5	Index of Administrative Publica- tions
SR 310-30-1	Organization and Equipment Au- thorization Tables
SR 320-5-1	Dictionary of United States Army Terms
SR 320-5-5	Dictionary of United States mili- tary Terms for Joint Usage
SR 320-50-1	Authorized Abbreviations

AR's and SR's 330-10 Series	Statistical and Accounting Systems
AR's and SR's 380 Series	Military Security
AR's and SR's 600 Series	Personnel
AR's and SR's 600-400 Series	Personnel—Casualties
AR's and SR's 600-620 Series	Personnel—Economy
SR 615-25 Series	Enlisted Personnel
AR's and SR's 625 Series	Women's Army Corps
AR's and SR's 711 Series	Stock Control
SR 725-15 Series	Issue of Supplies and Equipment
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FM 19-40	Handling Prisoners of War
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FM 21-5	Military Training
FM 21-8	Military Training Aids
FM 21-10	Military Sanitation
FM 21-30	Military Symbols
FM 21-40	Defense Against CBR Attack
FM 22-10	Leadership
FM 24-5	Signal Communications
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FM 25-6	Dog Transportation
FM 25-7	Pack Transportation
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FM 27-5	United States Army and Navy Manual of Civil Affairs/Military Government
FM 27-10	Rules of Land Warfare
FM's 30 Series	Military Intelligence
FM 30-16	(Classified)
FM 31-15	Operations Against Airborne At- tack, Guerilla Action, and Infil- tration
FM 31-25	Desert Operations
FM 31-72	Administration in the Arctic
FM 41-15	Civil Affairs Military Government Units
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FM 55-25	Ports in Theaters of Operations
FM 55-26	Transportation Inland Waterways Service
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FM 60-25	Employment of the Amphibious Support Brigade
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FM 70-10	Mountain Operations
FM 72-20	Jungle Operations
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FM 101-10	SOFM, Organization, Technical, and Logistical Data
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FM 110-10	(Classified)
TM 10-215	Sales Commissary Operation
TM 12-205	The Army Postal Service
TM 38-230	Preservation, Packaging, and Packing of Military Supplies and Equipment
TM 38-705	Army Shipping Document

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